FILED

September 11, 2024 CLERK, U.S. DISTRICT COURT WESTERN DISTRICT OF TEXAS

<sub>BY:</sub> Christian Rodriguez

DEPUTY

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS AUSTIN DIVISION

NETWORK SYSTEM TECHNOLOGIES, LLC,	)
Plaintiff,	) ) )
V.	)
QUALCOMM INCORPORATED; QUALCOMM TECHNOLOGIES, INC.;	) ) Civil Action No. 1:22-cv-1331-DAE )
QUALCOMM CDMA TECHNOLOGIES ASIA-PACIFIC PTE LTD.; QUALCOMM	) JURY TRIAL DEMANDED
GLOBAL TRADING PTE LTD.; ARTERIS,	)
INC.,	)

Defendants.

## SECOND AMENDED COMPLAINT

Plaintiff Network System Technologies, LLC ("NST" or "Plaintiff"), by and through its attorneys, demands a trial by jury on all issues so triable, and for its complaint against Qualcomm Incorporated, Qualcomm Technologies, Inc., Qualcomm Global Trading Pte Ltd., Qualcomm CDMA Technologies Asia-Pacific Pte Ltd., and Arteris, Inc. (collectively, "Defendants"), alleges as follows:

# **NATURE OF THE ACTION**

1. This is a civil action for patent infringement under the patent laws of the United States, Title 35, United States Code, Section 271, *et seq.*, involving the following United States Patents (collectively, "Asserted Patents") and seeking damages and injunctive relief as provided in 35 U.S.C. §§ 281 and 283-285:

U.S. Patent No. 7,366,818 (Exhibit 1, "'818 patent")
U.S. Patent No. 7,373,449 (Exhibit 2, "'449 patent")
U.S. Patent No. 7,594,052 (Exhibit 3, "'052 patent")
U.S. Patent No. 7,769,893 (Exhibit 4, "'9893 patent")

# U.S. Patent No. 8,072,893 (Exhibit 5, "'2893 patent")

# THE PARTIES

2. Plaintiff is a limited liability company formed under the laws of Delaware, with a principal place of business at 533 Congress Street, Portland, ME 04101. Plaintiff is the owner by assignment of the Asserted Patents.

3. On information and belief, Qualcomm Incorporated is a corporation organized and existing under the laws of Delaware, having a principal place of business at 5775 Morehouse Drive, San Diego, California 92121. On information and belief, Qualcomm Incorporated has a business location in this Judicial District at 9600 N. Mopac, Suite 900, Stonebridge Plaza II, Austin, Texas 78759.<sup>1</sup> On information and belief, Qualcomm Incorporated may be served in Texas at least via its registered agent, Prentice Hall Corp System, 211 E. 7th Street, Suite 620, Austin, Texas 78701.

4. On information and belief, Qualcomm Technologies, Inc. ("Qualcomm Technologies") is a corporation organized and existing under the laws of Delaware, having a principal place of business at 5775 Morehouse Drive, San Diego, California 92121. On information and belief, Qualcomm Technologies is a wholly-owned subsidiary of, and is controlled and directed by, Qualcomm Incorporated and "operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its products and services businesses."<sup>2</sup> On information and belief, Qualcomm Technologies has a business location in this Judicial District at 9600 N. Mopac, Suite 900,

<sup>&</sup>lt;sup>1</sup> <u>https://www.qualcomm.com/company/facilities/offices?country=USA</u> (last visited December 19, 2022)

<sup>(</sup>identifying a Qualcomm office at this address in Austin, Texas).

<sup>&</sup>lt;sup>2</sup> <u>https://www.qualcomm.com</u> (last visited December 19, 2022).

### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 3 of 155

Stonebridge Plaza II, Austin, Texas 78759.<sup>3</sup> On information and belief, Qualcomm Technologies may be served in Texas at least via its registered agent, Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701.

5. On information and belief, Qualcomm Global Trading Pte Ltd. ("QGT") is a corporation organized under the laws of Singapore, with corporate offices at 6 Seragoon North Avenue 5, Singapore 554910, Singapore. On information and belief, QGT is a wholly-owned subsidiary of, and is controlled and directed by, Qualcomm Technologies.<sup>4</sup>

6. On information and belief, Qualcomm CDMA Technologies Asia-Pacific Pte Ltd. ("QCTAP") is a corporation organized under the laws of Singapore, with corporate offices at 6 Seragoon North Avenue 5, #03-04, Singapore 554910, Singapore.<sup>5</sup> On information and belief, QCTAP is a wholly-owned subsidiary of, and is controlled and directed by, QGT.<sup>6</sup> On information and belief, insofar as QGT is a wholly-owned subsidiary of, and is controlled and directed by, Qualcomm Technologies, so too is QCTAP. On information and belief, QCTAP takes possession in Singapore of products accused of infringement in this case. On information and belief, QCTAP manages orders and sales of accused infringing products, and QCTAP ships accuses products from Singapore to customers, including customers in the United States.

7. Qualcomm Incorporated, Qualcomm Technologies, QGT, and QCTAP are referred to collectively hereinafter as "Qualcomm" or "the Qualcomm Defendants." On information and belief, the Qualcomm Defendants are joint tortfeasors with each other regarding the matters alleged herein. On information and belief, Qualcomm subsidiaries, including at least Qualcomm

<sup>&</sup>lt;sup>3</sup> <u>https://www.qualcomm.com/company/facilities/offices?country=USA</u> (last visited December 19, 2022) (identifying a Qualcomm office at this address in Austin, Texas).

<sup>&</sup>lt;sup>4</sup> Monterey Research, LLC v. Qualcomm Inc., et al., Case No. 6:21-cv-936-ADA, Dkt. No. 17.

<sup>&</sup>lt;sup>5</sup> Monterey Research, LLC v. Qualcomm Inc., et al., Case No. 6:21-cv-936-ADA, Dkt. No. 16.

<sup>&</sup>lt;sup>6</sup> Monterey Research, LLC v. Qualcomm Inc., et al., Case No. 6:21-cv-936-ADA, Dkt. No. 17.

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 4 of 155

Technologies, QGT, and QCTAP had the same knowledge of the Asserted Patents as any Qualcomm corporate parent, including at least Qualcomm Incorporated and any other corporate parent in any Qualcomm corporate parent-subsidiary relationship. The knowledge and actions of the various Qualcomm Defendants are imputed to each other.

8. On information and belief, Arteris, Inc. ("Arteris") is a corporation organized and existing under the laws of Delaware, having a principal place of business at 595 Millich Drive, Suite 200, Campbell, California 95008. On information and belief, Arteris has a business location in this Judicial District at 9601 Amberglen Boulevard, Suite 117, Austin, Texas 78729.<sup>7</sup> On information and belief, Arteris may be served in Texas at least via its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

9. Qualcomm and Arteris are referred to collectively hereinafter as "Defendants."

10. On information and belief, the Defendants are engaged in making, using, offering for sale, selling, importing, or otherwise providing, within the United States and in particular the State of Texas and this Judicial District, directly or indirectly, system-on-a-chip products ("SoCs"), and/or related products and services, with features and functionalities that infringe the Asserted Patents.

#### JURISDICTION AND VENUE

This Court has jurisdiction over the subject matter of this action pursuant to 28
 U.S.C. §§ 1331 and 1338(a).

12. Jurisdiction and venue for this action are proper in this Judicial District.

<sup>&</sup>lt;sup>7</sup> <u>https://ir.arteris.com</u> (last visited December 19, 2022) (identifying an "Austin Branch" of Arteris at this address in Austin, Texas); <u>https://www.arteris.com</u> (last visited December 19, 2022) (identifying this address in Austin, Texas for Arteris and associating this Austin address with an email address regarding Arteris sales in the Americas); <u>https://ir.arteris.com/node/7391/html</u> (last visited December 19, 2022) (2021 SEC Form 10-K for Arteris states that Arteris leases an office in Austin, Texas).

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 5 of 155

13. This Court has personal jurisdiction over Defendants at least because, through a respective Defendant's own acts and/or through the acts of each other Defendant acting as its agent, representative, or alter ego, they (i) have a presence or regular and established place of business in the State of Texas and this Judicial District; (ii) have purposefully availed themselves of the rights and benefits of the laws of the State of Texas and this Judicial District; (iii) have done and are doing substantial business in the State of Texas and this Judicial District, directly or through intermediaries, both generally and, on information and belief, with respect to the allegations in this Complaint, including their one or more acts of infringement in the State of Texas and this Judicial District; (iv) maintain continuous and systematic contacts in the State of Texas and this Judicial District; (v) have invoked the jurisdiction of this Judicial District for the assertion of patent-related claims in prior cases; (vi) waived personal jurisdiction objections in this Judicial District in prior patent-related cases; and/or (vii) place products alleged to be infringing in this Complaint in the stream of commerce, directly or through intermediaries, with awareness that those products are likely destined for use, offer for sale, sale, and/or importation in the State of Texas and this Judicial District. On information and belief, the Defendants, directly and/or through intermediaries, have advertised (including through websites), offered to sell, sold and/or distributed infringing products, and/or have induced the sale and use of infringing products in the United States and in the State of Texas, including in this Judicial District. On information and belief, the Qualcomm Defendants, directly and/or through intermediaries, have conducted the activities described in paragraphs 190-229, within the United States and in the State of Texas, including in this Judicial District. On information and belief, the Qualcomm Defendants, directly and/or through intermediaries, have directed the activities described in paragraphs 190-229 at customers and end users within the United States and in the State of Texas, including in this Judicial District.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 6 of 155

14. On information and belief, the Defendants do one or more of the following with Accused Products: (a) import such products into the United States for sale to customers and/or consumers including customers and/or consumers in the State of Texas and in this Judicial District; (b) sell such products or offer them for sale in the United States, including to customers and/or consumers in the State of Texas and in this Judicial District; and/or (c) sell such products to customers who incorporate them into accused products that such customers import, sell, or offer for sale in the United States, including in the State of Texas and in this Judicial District. For example, Defendants have authorized retailers and distributors in the State of Texas and this Judicial District for the products alleged to be infringing in this Complaint, and Defendants have derived substantial revenues from their infringing acts occurring within the State of Texas and this Judicial District.

15. Defendants have established sufficient minimum contacts with the State of Texas and this Judicial District such that they should reasonably and fairly anticipate being brought into court in the State of Texas and this Judicial District without offending traditional notions of fair play and substantial justice; and Defendants have purposefully directed activities at residents of the State of Texas and this Judicial District. Moreover, the patent infringement claims alleged herein arise out of or are related to one or more of the foregoing activities. On information and belief, a substantial part of the events giving rise to Plaintiff's claims, including acts of patent infringement, have occurred in the State of Texas and this Judicial District.

16. This Court has personal jurisdiction over Qualcomm Incorporated, Qualcomm Technologies, QGT, and QCTAP at least because they have committed, aided, abetted, contributed to and/or participated in the commission of acts of infringement giving rise to this action within the State of Texas, including in this District and elsewhere, by, inter alia, directly and/or indirectly

6

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 7 of 155

making, using, selling, offering for sale, importing products and/or practicing methods that practice one or more claims of the Patents-in-Suit. Furthermore, Qualcomm Incorporated, Qualcomm Technologies, QGT, and QCTAP transacted and conducted business in the State of Texas, including in this District and elsewhere, and with Texas residents with respect to the products and instrumentalities accused of infringing the Patents-in-Suit. Among other things, Qualcomm Incorporated, Qualcomm Technologies, QGT, and QCTAP, directly and/or through subsidiaries, affiliates, and/or intermediaries (including distributors, retailers, and others), use, sell, ship, distribute, import into, offer for sale, and/or advertise or otherwise promote their products throughout the United States, including in the State of Texas. See, e.g., www.qualcomm.com. For example, Qualcomm Incorporated, Qualcomm Technologies, QGT, and QCTAP develop products for sale in the United States, including in this District and elsewhere in the State of Texas, and test and verify products developed in the United States before selling them in the United States, of including in this District and elsewhere in the State Texas. See, e.g., https://www.qualcomm.com/news/releases/2008/10/30/qualcomm-opens-asia-pacific-test-centerexcellence-singapore ("Qualcomm's Asia Pacific Test Center will carry out design verification and failure analysis for Qualcomm's new products and technologies designed in its design centers in India, China, Taiwan, Korea and San Diego."). As an additional example, at least QGT and QCTAP contract with and are responsible for accepting orders and sending invoices to customers in the United States. See, e.g., Tessera Inc. v. Motorola, Inc. et al., No. 12-cv-692, slip op. at 3 (N.D. Cal. Aug. 7, 2013). Moreover, Qualcomm Incorporated, Qualcomm Technologies, QGT, and QCTAP have purposefully and voluntarily placed their infringing products into the stream of commerce with the expectation that those products will be purchased and used by customers and/or consumers in the State of Texas, including in this District. In addition, or in the alternative, this

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 8 of 155

Court has personal jurisdiction over QGT and QCTAP under Federal Rule of Civil Procedure 4(k)(2). In addition, at least QCTAP has not objected to personal jurisdiction by this Judicial District in at least one prior patent case, and asserted patent-related counterclaims in that same case.<sup>8</sup> At least for those reasons, Qualcomm Incorporated, Qualcomm Technologies, QGT, and QCTAP has the requisite minimum contacts within the forum such that the exercise of jurisdiction over Qualcomm Incorporated, Qualcomm Technologies, QGT, and qCTAP would not offend traditional notions of fair play and substantial justice.

17. Venue is proper in this Judicial District as to Defendants under 28 U.S.C. §§ 1391(b) and 1400(b).

18. Venue is proper as to Qualcomm Incorporated and Qualcomm Technologies because, on information and belief, they have committed acts of infringement and both share a regular and established place of business in this Judicial District, as identified above in paragraphs 3–4. 28 U.S.C. § 1400(b). Qualcomm Incorporated and Qualcomm Technologies have admitted that they have a regular and established place of business at this location in this Judicial District.<sup>9</sup> Further, on information and belief, Qualcomm's business at this location in Austin, Texas relates to SoCs.<sup>10</sup> QGT and QCTAP are foreign corporations that have committed acts of infringement

<sup>9</sup> Qualcomm Incorporated and Qualcomm Technologies, Inc.'s Answer, Defenses, and Counterclaims, *Future Link Systems, LLC v. Qualcomm Inc. et al.*, 6:21-cv-00265, Dkt. 17 at 1, 3 (W.D. Tex. May 28, 2021) (noting that "Qualcomm" refers to both Qualcomm Incorporated and Qualcomm Technologies collectively—"Defendants Qualcomm Incorporated and Qualcomm Technologies, Inc. (collectively, 'Qualcomm')"—and stating that "*Qualcomm* admits that it had an office located at 9600 N. Mopac Expressway, Ste. 900, Stonebridge Plaza II, Austin, Texas 78759" (emphasis added)); Qualcomm Incorporated's and Qualcomm Technologies, Inc.'s Answer and Affirmative Defenses to Plaintiff's Original Complaint for Patent Infringement, *Liberty Patents, LLC v. Broadcom Inc. et al.*, 6:20-cv-00970, Dkt. 65 at 1, 7 (W.D. Tex. Jan. 19, 2021) (noting that "Qualcomm" refers to both Qualcomm Technologies, Inc. (collectively, 'Qualcomm' Defendants Qualcomm Incorporated and Qualcomm Technologies collectively—"Defendants Patents, LLC v. Broadcom Inc. et al., 6:20-cv-00970, Dkt. 65 at 1, 7 (W.D. Tex. Jan. 19, 2021) (noting that "Qualcomm" refers to both Qualcomm Technologies, Inc. (collectively, 'Qualcomm')"—and "admit[ting] that *Qualcomm* has a place of business in this District at 9600 N. Mopac, Suite 900, Stonebridge Plaza II, Austin, Texas 78759" (emphasis added)). *See also* https://therealdeal.com/texas/2022/11/01/qualcomm-scoops-90k-sq-ft-in-alexandria-austin-office/ (last visited December 19, 2022 ("Qualcomm scoops 90K-sq-ft in Alexandria Austin office").

<sup>&</sup>lt;sup>8</sup> Monterey Research, LLC v. Qualcomm Inc., et al., Case No. 6:21-cv-936-ADA, Dkt. No. 16.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 9 of 155

in this District, and venue is proper in any district in which QGT and QCTAP are subject to personal jurisdiction. Venue is proper as to QGT and QCTAP because they are foreign entities. 28 U.S.C. § 1391(c); *In re HTC Corp.*, 889 F.3d 1349, 1357 (Fed. Cir. 2018) (holding that "[t]he Court's recent decision in *TC Heartland* does not alter" the alien-venue rule). Venue is further proper based on the facts alleged in the preceding paragraphs, which are incorporated by reference as if fully set forth herein.

19. Venue is proper as to Arteris because, on information and belief, it has committed acts of infringement and has a regular and established place of business in this Judicial District, as identified above in paragraph 8. 28 U.S.C. § 1400(b). Further, on information and belief, Arteris's business at this location in Austin, Texas relates to SoCs.<sup>11</sup>

## JOINDER AND RELATIONSHIP AMONG DEFENDANTS

20. Joinder is proper under at least Federal Rule of Civil Procedure 20 and 35 U.S.C. § 299 at least because Defendants' infringing conduct alleged herein arises out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused product or process, or portions thereof, and questions of fact common to all Defendants will arise in this action.

21. On information and belief, Qualcomm makes, uses, imports, offer for sale, and/or sells accused SoC products that include Arteris SoC technology and/or derivatives thereof. Also,

<sup>&</sup>lt;u>Platform-Architect\_3021891?locations=4019e639566e0101f246681c33120000</u> (last visited Dec. 19, 2022) (job posting for "Sr. SoC Architecture – Automotive Platform Architect" in Austin, Texas).

<sup>&</sup>lt;sup>11</sup> See, e.g., <u>https://www.arteris.com/careers?p=job/oeKpifwp&nl=1</u> (last visited December 19, 2022) (job posting for "Senior Field Application Engineer - Network-on-chip" in Austin, Texas, with a job description related to "System-on-Chips," a responsibility of being "an expert on interconnects for System-on-Chips," and a requirement of "5 years of front-end digital SoC experience"); <u>https://www.arteris.com/careers?p=job/opZBjfw2&nl=1</u> (last visited December 19, 2022) (job posting for an engineer in Austin, Texas for working on "solutions for … SoC designs," with a responsibility of "expertise on complex SoC projects").

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 10 of 155

on information and belief, Arteris indirectly infringes based on Qualcomm making, using, importing, offering for sale, and/or selling those accused SoC products. Thus, the Qualcomm accused SoC products are common to all Defendants' infringement of the Asserted Patents, and the factual question of infringement will thus substantially overlap for all Defendants.

22. Further, on information and belief, Qualcomm purchased, purchases, or otherwise obtained or obtains, SoC technology from Arteris, and there are licensing or technology agreements between Qualcomm and Arteris.

23. Additionally, Qualcomm hired approximately 43 Arteris engineers and acquired certain Arteris SoC technology and IP in 2013, licensed such SoC technology and IP back to Arteris, and provides improvements to, and engineering support for, such SoC technology and IP to Arteris.<sup>12</sup> On information and belief, the Qualcomm accused SoC products incorporate certain Arteris SoC technology, and/or derivatives thereof.

24. On information and belief, the 2013 acquisition was a wholesale acquisition of a substantial part of Arteris's Network on Chip ("NoC") business, engineering team, and technology by Qualcomm for nearly one-quarter of a billion dollars. As Arteris reported on its own website at the time, "Qualcomm Technologies, Inc. ('Qualcomm'), a subsidiary of Qualcomm Incorporated, has acquired certain technology assets from Arteris and hired personnel formerly employed by Arteris" and "Qualcomm has agreed to make certain FlexNoC updates available to Arteris based upon an agreed upon schedule and provide certain engineering support to Arteris."<sup>13</sup> As was reported at the time in an article titled "Qualcomm acquires Arteris' NoC tech assets, team": "Terms of the deal were not disclosed, though Deep Chip reported a rumored \$224 million

<sup>&</sup>lt;sup>12</sup> See, e.g., <u>https://www.arteris.com/press-releases/qualcomm-arteris-asset-acquisition-2013\_oct\_31</u> (last visited December 19, 2022); <u>https://www.eetimes.com/qualcomm-buys-arteris-tech-team/</u> (last visited December 19, 2022). <sup>13</sup> https://www.arteris.com/press-releases/qualcomm-arteris-asset-acquisition-2013\_oct\_31(last visited August 7, 2023).

price tag last week, which it said 'seems high."<sup>14</sup>

Among the 43 Arteris engineers hired was Philippe Martin, who was Arteris' Chief 25. Technical Officer from March 2003 to September 2012 and a "Corporate Application Manager and Senior fellow" from January 2012 to September 2013.<sup>15</sup> In October 2013, as part of Qualcomm's acquisition of Arteris, Mr. Philippe Martin became Qualcomm's Senior Director of Technology, where he remained for the next 7 years and 8 months, until he left Qualcomm in May 2021.<sup>16</sup> On information and belief, given Mr. Philippe Martin's leadership role over technology as Chief Technical Officer at Arteris, his role as Qualcomm's Senior Director of Technology was similarly a leadership-level role and he had oversight over most, if not all, aspects of the accused infringing Network on Chip technology at both Arteris and Qualcomm. The former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, worked on NoC technology at Arteris, were familiar with Arteris's NoC technology, were familiar with Qualcomm's NoC technology, and, on information and belief, possessed knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or were willfully blind to such infringement. The knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, is imputed to Qualcomm.

26. Mr. Philippe Martin, while he was still Arteris' Chief Technical Officer, coauthored a chapter of a book published in 2009 titled NETWORKS-ON-CHIPS Theory and Practice. Exhibit 7, Goossens Decl., ¶ 22. The chapter that Mr. Philippe Martin authored, entitled "Networks-on-Chip-Based Implementation: MPSoC for Video Coding Applications," evidenced a deep understanding of Philips' Network on Chip ("NoC") technology by Arteris' CTO, Mr.

<sup>&</sup>lt;sup>14</sup> <u>https://www.fiercewireless.com/tech/qualcomm-acquires-arteris-noc-tech-assets-team</u> (last visited August 7, 2023).

<sup>&</sup>lt;sup>15</sup> <u>https://www.linkedin.com/in/philippe-martin-4b863b/</u> (last visited August 7, 2023).

<sup>&</sup>lt;sup>16</sup> Id.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 12 of 155

Philippe Martin, including certain aspects related to the technology described in the Asserted Patents. *Id.* That chapter included citations to references [9]–[17], and [24]–[25], which are Philips research papers related to Philips' NoC technology, including certain aspects related to the technology described in the Asserted Patents. *Id.* Each of these twelve Philips research papers cited in the Arteris-authored book chapter were authored by one or more inventors of the Asserted Patents. *Id.* These references indicate Mr. Philippe Martin and Arteris' in-depth knowledge of Philips NoC technology, including the subject matter of the Asserted Patents, by 2009. Goossens Decl. ¶ 22–23. The book chapter, and its internal citations to papers authored by the Philips inventors, indicate Mr. Philippe Martin and Arteris had knowledge of Philips', and the Asserted Patents', approach to Quality of Service ("QoS") in NoCs, including certain aspects related to the technology described in the Asserted Patents. *Id.* On information and belief, Mr. Philippe Martin's in-depth knowledge of Philips' NoC technology, including the subject matter of the Asserted Patents approach to Patents. *Id.* On information and belief, Mr. Philippe Martin's in-depth knowledge of Philips' NoC technology, including the subject matter of the Asserted Patents approach to the Asserted Patents. *Id.* On information and belief, Mr. Philippe Martin's in-depth knowledge of Philips' NoC technology, including the subject matter of the Asserted Patents, followed him from Arteris to Qualcomm, when he joined the latter in 2013.

27. On information and belief, as part of this acquisition of Arteris by Qualcomm, certain intellectual property, including issued patents and pending patent applications, were assigned to Qualcomm. For example, U.S. Patent Application No. 11/518,384, U.S. Patent No. 8,645,557 and U.S. Patent No. 9,471,538 were originally assigned to Arteris and subsequently reassigned to Qualcomm in or about October 2013 as part of the Qualcomm acquisition of Arteris.

28. Underscoring the importance of this nearly-one-quarter-of-a-billion-dollar acquisition of Arteris by Qualcomm, Arteris explained on its website at the time of the 2013 acquisition:

"Arteris NoC technology has been and will continue to be a key enabler for creating larger and more complex chips in a shorter amount of time at a lower cost," said K.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 13 of 155

Charles Janac, President and CEO, Arteris. "This acquisition of our technology assets represents a validation of the value of Arteris' Network-on-Chip interconnect IP technology."<sup>17</sup>

29. Further underscoring the importance of this nearly-one-quarter-of-a-billion-dollar acquisition of Arteris by Qualcomm, Arteris explained on its website (until as recently as May 2021) that "Arteris-developed NoC technology is the backbone of [Qualcomm] Snapdragon application processors & LTE modems, [Qualcomm] Atheros wireless connectivity SoCs, and [Qualcomm] CSR IoT products."<sup>18</sup>

30. On information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence commensurate with a transaction of the size and importance of the Arteris acquisition. On information and belief, such diligence included a thorough analysis of Arteris' intellectual property, including the prosecution histories of patent applications and patents to be assigned from Arteris to Qualcomm, which included U.S. Patent Application No. 11/518,384, U.S. Patent No. 8,645,557 and U.S. Patent No. 9,471,538—each of which cited one or more of the Asserted Patents, as explained in more detail below. On information and belief, this diligence further included interviews with patent prosecution counsel, the named inventors of such patents and patent applications, as well as such inventors' supervisors and project leads to gain a thorough understanding of the status and value of these patents and applications, and whether any potential patent infringement issues were revealed in connection

<sup>&</sup>lt;sup>17</sup> <u>https://www.arteris.com/press-releases/qualcomm-arteris-asset-acquisition-2013\_oct\_31</u> (last visited August 7, 2023).

<sup>&</sup>lt;sup>18</sup> <u>https://web.archive.org/web/20210514110614/https://www.arteris.com/customers</u> (last visited August 7, 2023).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 14 of 155

with the mapping of competitors' patents, such as the Asserted Patents, onto Arteris patents and patent applications that cover Arteris' Network on Chip ("NoC") technology being acquired by Qualcomm for \$224 million. By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

On information and belief, given the substantial \$224 million price of the Arteris 31. acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm's diligence further included thorough analysis and assessment of potential patent infringement by Arteris and the Arteris Network on Chip ("NoC") technology to be acquired by Qualcomm. On information and belief, such diligence included interviews with the 43 Arteris engineers that Qualcomm hired as part of the acquisition, including key employees such as Arteris' Chief Technical Officer, Philippe Martin, to learn the full scope of such employees knowledge of competing NoC technologies and associated intellectual property-such as Philips' NoC technology and the Asserted Patents—and any partnerships that Arteris might have explored with competitors such as Philips and the information that Arteris learned from Philips. By virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 15 of 155

Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

32. On information and belief, the aforementioned diligence revealed to Qualcomm no later than October 2013 the multiple pre-2010 meetings, disclosure of Philips NoC technical information to Arteris, and potential collaboration between Arteris and Philips discussed in the next section. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, as discussed in the next section. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris had knowledge that Arteris, Arteris' customers, and/or Arteris' end users infringed the Asserted Patents, or was willfully blind to such infringement, as discussed in the next section. By virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, Mr. Philippe Martin, and other sources, will further confirm the details of Qualcomm's diligence, and the information it learned as part of that diligence, as well as information that Qualcomm learned from the ongoing employment of 43 Arteris engineers, including Arteris' Chief Technical Offer, Mr. Philippe Martin, about Arteris' knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1).

## THE ASSERTED PATENTS

33. The Asserted Patents result from extensive research and development by Philips Semiconductors, a subsidiary of Koninklijke Philips N.V. ("Philips") that included VLSI Technology, Inc., which Philips acquired in 1999. Prior to being spun off in 2006 as NXP Semiconductors N.V. ("NXP"), Philips Semiconductors was one of the largest semiconductor companies in the world. Each of the Asserted Patents predate the NXP spin-off and were retained by Philips until all right, title, and interest in the Asserted Patents were transferred to Plaintiff.

34. Dr. Kees Gerard Willem Goossens is a named inventor on four of the five Asserted Patents, namely, U.S. Patent Nos. 7,366,818; 7,373,449; 7,594,052; and 7,769,893. Dr. Goossens is familiar with the technology described in all five Asserted Patents, as well as certain facts demonstrating Arteris' knowledge thereof, and submitted a Declaration (herein, "Goossens Decl."), which is attached hereto as Exhibit 7. The other named inventors on the Asserted Patents include Andrei Rădulescu, John Dielissen, and Edwin Rijpkema. All inventors of the Asserted Patents were employees of Philips at the time of inventions. Goossens Decl. ¶ 4–6.

35. The inventions disclosed in the Asserted Patents relate to Philips' development of Network on Chip ("NoC") technology. Goossens Decl.  $\P$  7.

36. At some point prior to the NXP spinout in 2006, Dr. Goossens and other Philips researchers met with Arteris' then-CEO, Alain Fanet and others from Arteris. Goossens Decl. ¶ 8. Alain Fanet is the Founder of Arteris and was the CEO of Arteris from 2003 to 2008. *Id.* The total attendance at this meeting was approximately 5–8 people. *Id.* During this meeting, attendees discussed Philips' NoC technology, including certain aspects related to the technology described in one or more of the Asserted Patents. *Id.* On information and belief, these pre-2007 meetings

16

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 17 of 155

discussed the inventions disclosed in one or more of the Asserted Patents. *See id.* On information and belief, based on the pre-2010 meetings described herein and in the next paragraph, Arteris had knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). *See id.* By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

37. Dr. Goossens' meeting with Arteris was followed by multiple exchanges between Arteris and Philips' Central Technology Organization ("CTO") prior to Dr. Goossens' departure from Philips/NXP in 2010. Goossens Decl. ¶ 6, 9. The purpose of these exchanges was evaluating Arteris technology for Philips' requirements on SoC interconnects, and more specifically, for possible use of Arteris technology in Philips' SoCs. Goossens Decl. ¶ 9. On information and belief, these exchanges involved disclosure and discussion of Philips' NoC technology, including certain aspects related to the technology described in one or more of the Asserted Patents. *Id.* On information and belief, these meetings required Philips to give Arteris information on the requirements that a NoC would have to satisfy, especially requirements on Quality of Service ("QoS"), which is related to the technology described in one or more of the Asserted Patents. *Id.* On information and belief, these 2010 or earlier meetings discussed the inventions disclosed in one or more of the Asserted Patents. *See id.* On information and belief, based on the pre-2010 meetings described herein and in the preceding paragraph, Arteris had knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 18 of 155

infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). *See id.* By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

38. Dr. Goossens attended MPSoC 2005 in Relais de Margaux, France. Goossens Decl. ¶ 10. MPSoC 2005 was the 5<sup>th</sup> International Forum on Application-Specific Multi-Processor SoC. *Id.* On July 12, 2005, at MPSoC 2005, Alain Fanet presented on "NoC: the Arch key of IP integration methodology" on behalf of Arteris. Goossens Decl. ¶ 11. As noted above, Alain Fanet is the Founder of Arteris and was the CEO of Arteris from 2003 to 2008. Alain Fanet's presentation indicated that Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, including such patents' approach to Quality of Service ("QoS"). Goossens Decl. ¶ 11–14.

39. Immediately after Alain Fanet's presentation, and during the same session at MPSoC 2005, Dr. Goossens presented on "Systems on Chips: Personal Computers or correct performance?" on behalf of Philips Research. Goossens Decl. ¶ 13. Dr. Goossens' presentation discussed subject matter relevant to one or more of the Asserted Patents and noted that "QoS is hot topic." Goossens Decl. ¶ 13–14.

40. On information and belief, based on Alain Fanet's July 2005 presentation, the great interest in QoS at the time, Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, including such patents' approach to Quality of Service ("QoS"). Goossens Decl. ¶ 11–14. On information and belief, at or around the time of these presentations,

18

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 19 of 155

Arteris had knowledge of the inventions disclosed in one or more of the Asserted Patents. *See id.* On information and belief, Arteris had knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). *See id.* By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

41. In 2005, Arteris published a white paper titled "A comparison of Network-on-Chip and Buses." Goossens Decl. ¶ 15. On information and belief, this Arteris paper indicates Arteris had knowledge of Philips' NoC technology, which was the first and pre-eminent NoC that used technological approaches described in the 2005 Arteris paper. Goossens Decl. ¶ 15–16. On information and belief, this Arteris paper further indicates Arteris was aware of, and interested in, the technology described in one or more of the Asserted Patents at or around the time this paper was published. Id. On information and belief, at or around the time of this paper, Arteris had knowledge of the inventions disclosed in one or more of the Asserted Patents. See id. On information and belief, Arteris had knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). See id. By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 20 of 155

42. Dr. Goossens attended MPSoC 2006 in Estes Park, Colorado, USA. Goossens Decl. ¶ 17. MPSoC 2006 was the 6th International Forum on Application-Specific Multi-Processor SoC. *Id.* On August 17, 2006, at MPSoC 2006, Dr. Goossens presented on "Quality of Service for an Uncertain World" on behalf of Philips Research. Goossens Decl. ¶ 17–18.

Later that same day, at MPSoC 2006, Alain Fanet presented on "Q[uality] o[f] 43. S[ervice] profiling using NoC Adaptive Design Information System" on behalf of Arteris. Goossens Decl. ¶ 19. As noted above, Alain Fanet is the Founder of Arteris and was the CEO of Arteris from 2003 to 2008. On information and belief, Alain Fanet's presentation indicates Arteris had knowledge of Philips' NoC technology, which was the first and pre-eminent NoC that used technological approaches described in such presentation. Goossens Decl. ¶ 19-21. On information and belief, this Arteris presentation indicates Arteris was aware of, and interested in, the technology described in one or more of the Asserted Patents at or around the time of this presentation. Id. On information and belief, at or around the time of this presentation, Arteris had knowledge of the inventions disclosed in one or more of the Asserted Patents. See id. On information and belief, Arteris had knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). See id. By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

44. In 2009, a book titled NETWORKS-ON-CHIPS Theory and Practice was published. Goossens Decl. ¶ 22. Chapter 11 of this book, entitled "Networks-on-Chip-Based

20

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 21 of 155

Implementation: MPSoC for Video Coding Applications," was co-authored by Arteris' then-Chief Technical Officer, Philippe Martin. Id. References [9]-[17], and [24]-[25] of chapter 11 are citations to Philips research papers related to Philips' NoC technology, including certain aspects related to the technology described in the Asserted Patents. Id. Each of these twelve Philips research papers cited in the Arteris-authored book chapter were authored by one or more inventors of the Asserted Patents. Id. These references indicate Arteris' in-depth knowledge of Philips NoC technology, including the subject matter of the Asserted Patents, by 2009. Goossens Decl. ¶ 22-23. The book chapter, and its internal citations to papers authored by the Philips inventors, indicate Arteris had knowledge of Philips', and the Asserted Patents', approach to Quality of Service ("QoS") in NoCs, including certain aspects related to the technology described in the Asserted Patents. Id. On information and belief, this Arteris-authored book chapter indicates Arteris was aware of, and interested in, the technology described in one or more of the Asserted Patents at or around the time this book was published. Id. On information and belief, at or around the time of this Arteris-authored book chapter, Arteris had knowledge of the inventions disclosed in one or more of the Asserted Patents. See id. On information and belief, Arteris had knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). See id. By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

45. In late 2013, a company named Governing Dynamics sought to monetize a certain

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 22 of 155

patent portfolio ("the portfolio") owned by Koninklijke Philips Electronics N.V. All five of the Asserted Patents, namely, U.S. Patent Nos. 7,366,818; 7,373,449; 7,594,052; 7,769,893; and 8,072,893 were within the portfolio that Governing Dynamics sought to monetize. In late December 2013, a representative of Governing Dynamics made contact with Qualcomm through one or more of Qualcomm's attorneys and informed Qualcomm of the Asserted Patents and the rest of the patents in the portfolio. On or before December 30, 2013, a representative from Qualcomm told Governing Dynamics that it would consider the patents in the portfolio.

46. On or about January 12, 2014, Roger Martin, then the Senior Vice President and Chief IP Strategist of Qualcomm Incorporated, wrote an email to Governing Dynamics regarding the portfolio, including the Asserted Patents, and expressing Qualcomm's interest in engaging in a technical discussion, including technical personnel from Qualcomm, regarding the portfolio, including the Asserted Patents, and the technology disclosed therein.

47. On or about January 12, 2014, Governing Dynamics responded to Qualcomm's Chief IP Strategist Roger Martin by email to confirm logistics of the call on or about January 14, 2014, and intent to include technical personnel on the Governing Dynamics side.

48. On or about January 15, 2014, Governing Dynamics wrote by email to Qualcomm's Chief IP Strategist Roger Martin confirming logistics for an additional call on or about January 16, 2014. Mr. Roger Martin replied the same day confirming the call.

49. Qualcomm's Chief IP Strategist continued discussing the portfolio of patents with Governing Dynamics in January 2014.

50. On information and belief, Qualcomm's technical personnel, Qualcomm's Chief IP Strategist Roger Martin, and/or others at Qualcomm evaluated the portfolio, including the Asserted Patents, at least as early as late 2013 or early 2014, and such evaluation revealed to Qualcomm not

22

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 23 of 155

only knowledge of the Asserted Patents, but also infringement of the Asserted Patents by Qualcomm, Qualcomm's customers and/or its customer's end users, and/or Qualcomm's end users. The knowledge of Qualcomm's Chief IP Strategist Roger Martin and others at Qualcomm who evaluated the Asserted Patents, including knowledge of the Asserted Patents, and knowledge of infringement of the Asserted Patents by Qualcomm, Qualcomm's customers, and/or Qualcomm's end users and/or third party products containing Qualcomm's products, is imputed to Qualcomm.

51. On information and belief, Qualcomm had actual knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as early as late 2013 or early 2014 through the communications between Qualcomm and Governing Dynamics regarding the Asserted Patents and through the evaluations of the Asserted Patents, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, performed by Qualcomm.

## U.S. Patent No. 7,366,818

52. Plaintiff is the lawful owner of all right, title, and interest in United States Patent No. 7,366,818 (the "'818 patent"), entitled "INTEGRATED CIRCUIT COMPRISING A PLURALITY OF PROCESSING MODULES AND A NETWORK AND METHOD FOR EXCHANGING DATA USING SAME," including the right to sue and to recover for infringement thereof. The '818 patent was duly and legally issued on April 29, 2008, naming Andrei Radulescu and Kees Gerard Willem Goossens as inventors. A copy of the '818 patent is attached hereto as Exhibit 1.

53. The '818 patent has 7 claims: 1 independent claim and 6 dependent claims.

23

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 24 of 155

54. The '818 patent covers SoCs that have an interface that comprises a dropping means

for dropping data exchanged by two modules and where the interface can control the dropping of

data and therefore completion of message transactions.

55. The claims of the '818 patent, including claim 1 (reproduced below), recite at least

these inventive concepts of the '818 patent.

1. Integrated circuit comprising a plurality of processing modules (M, S) said modules being disposed on the same chip, and a network (N; RN) arranged for providing at least one connection between a first and at least one second module (M, S),

wherein said modules communicate via a network on chip, and

wherein said connection supports transactions comprising outgoing messages from the first module to the second modules and return messages from the second modules to the first module, the integrated circuit comprising at least one dropping means (DM) for dropping data exchanged by said first and second module (M, S), and

at least one interface means (ANIP, PNIP) for managing the interface between a module (M, S) and the network (N, RN),

wherein said interface means (ANIP, PNIP) comprises a first dropping means (DM) for dropping data, and

wherein the dropping of data and therefore the transaction completion can be controlled by the interface means.

(Exhibit 1, '818 patent at claim 1.) The subject matter described and claimed by the '818 patent,

including the integrated circuit of claim 1, was an improvement in the functionality, performance,

and efficiency of integrated circuits and the connections and communication networks thereof and

was novel and not well-understood, routine, or conventional at the time of the '818 patent.

56. Defendants had knowledge of the '818 patent at least as of the December 19, 2022,

date of the original Complaint (Dkt. 1).

57. The '818 patent was developed and patented by Philips Semiconductors, one of the

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 25 of 155

largest semiconductor companies in the world. Because of the size and prominence of Philips in the tight-knit semiconductor industry, industry participants, including, on information and belief, Defendants, monitored patenting activity by Philips and reviewed, and were aware of shortly after their publication, at least the U.S. published patent applications and patents obtained by Philips in the semiconductor space, including the '818 patent. On information and belief, such industry participants, including Defendants, considered Philips' U.S. published patent applications and patent applications and patents in the semiconductor space, including the '818 patent, and such Philips' U.S. published patent applications and patents in the semiconductor space, including the '818 patent, and such Philips' U.S. published patent applications and patents in the semiconductor space, including the '818 patent, and such Philips' U.S. published patent applications and patents in the semiconductor space, including the '818 patent, and such Philips' U.S. published patent applications and patents in the semiconductor space, including the '818 patent, and such Philips' U.S. published patent applications and patents' actual or potential applicability to their own current products and product roadmaps, including the products described herein.

58. The '818 patent is widely and publicly known, and frequently referenced, in the tight-knit semiconductor industry, having been cited during prosecution of approximately 76 patent applications assigned to industry leaders such as Intel Corporation, Arm Limited, NEC Corporation, IBM Corporation, and others.<sup>19</sup>

59. On information and belief, the '818 patent, or the application therefor, or a patent or application related to the '818 patent, was cited during prosecution of at least one patent application that was then or later assigned to or prosecuted by Arteris or a predecessor to or affiliate of Arteris.

60. The U.S. publication of the '818 patent's application, U.S. Patent Publication No. 2006/0041888, was cited, after the '818 patent had been granted, during the prosecution of U.S. Patent Application No. 11/518,384, entitled "SYSTEM FOR MANAGING MESSAGES TRANSMITTED IN AN ON-CHIP INTERCONNECT NETWORK," an application originally assigned to Arteris SA or Arteris SAS, with a filing date of September 8, 2006 and purported

<sup>&</sup>lt;sup>19</sup> <u>https://patents.google.com/patent/US7366818B2/en?oq=7%2c366%2c818</u> (last visited December 19, 2022).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 26 of 155

priority date of July 26, 2006.<sup>20</sup> Further, the cited reference was identified as "pertinent to" U.S. Patent Application No. 11/518,384.<sup>21</sup>

On information and belief, Arteris SA is a predecessor to, or is otherwise presently 61. or previously affiliated with, Defendant Arteris. On information and belief, Arteris SAS is a predecessor to, or is otherwise presently or previously affiliated with Defendant Arteris. On information and belief Arteris SA and/or Arteris SAS have shared knowledge (e.g., institutional knowledge) with Arteris regarding competition and intellectual property, such as patent prosecution and patents, including the '818 patent. For example, on information and belief, Arteris SA and/or Arteris SAS have coordinated multi-national patent prosecution with Defendant Arteris. As a further example, on information and belief, common patent counsel have been shared between Defendant Arteris and Arteris SA and/or Arteris SAS, or respective patent counsel for the companies have communicated regarding patents and patent prosecution. Further, on information and belief, Defendant Arteris and Arteris SA and/or Arteris SAS have had common employees, such as: employees that hold positions both in Defendant Arteris and in Arteris SA and/or Arteris SAS; employees that hold a single dual position both for Defendant Arteris and for Arteris SA and/or Arteris SAS; and employees that have migrated from Arteris SA and/or Arteris SAS to Defendant Arteris. Therefore, the knowledge of Arteris SA and/or Arteris SAS, at least insofar as it relates to knowledge of patent prosecution and patents, including the '818 patent, is imputed to Defendant Arteris. For convenience, Arteris SA and/or Arteris SAS may be referred to below as Arteris's "predecessors."

62. On information and belief, Arteris and its predecessors sought to obtain valid and

<sup>&</sup>lt;sup>20</sup> See <u>https://patents.google.com/patent/US20080028090A1/en?oq=US20080028090A1</u> (last visited December 19, 2022); Notice of References Cited dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

<sup>&</sup>lt;sup>21</sup> Office Action dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 27 of 155

enforceable patents for themselves.

63. On information and belief, Arteris and its predecessors were aware of, and considered and analyzed the inventions described and claimed in, all patents and patent applications cited during the prosecution of their own patent applications.

64. On information and belief, Arteris and its predecessors monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

65. On information and belief, Arteris and its predecessors were aware of and considered the '818 patent, and its actual or potential applicability to their own current products and product roadmaps, including the products described herein.

66. On information and belief, Arteris has expertise in the subject matter of the U.S. Patent Application No. 11/518,384, and the '818 patent and possesses sufficient technical competence to understand the scope of such patent and application.

67. On information and belief, Arteris additionally had knowledge of one or more of the Asserted Patents, including the '818 patent, by virtue of the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology, including the subject matter of the Asserted Patents, as discussed above in paragraphs 33–44.

68. On information and belief, by virtue of Philips' and the '818 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, Arteris's desire to obtain valid and enforceable patents, the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including

27

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 28 of 155

its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology and the subject matter of the Asserted Patents, and Arteris's knowledge of the '818 patent via citation during prosecution of the aforementioned patents and patent application, Arteris had actual knowledge of the '818 patent around the time it issued or its U.S. application published.<sup>22</sup> By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents is imputed to Qualcomm.

69. On information and belief, the '818 patent, or the application therefor, or a patent or application related to the '818 patent, was cited during prosecution of at least one patent application that was then or later assigned to or prosecuted by Qualcomm.

70. The U.S. publication of the '818 patent's application, U.S. Patent Publication No. 2006/0041888, was cited, after the '818 patent had been granted, during the prosecution of U.S. Patent Application No. 11/518,384, entitled "SYSTEM FOR MANAGING MESSAGES TRANSMITTED IN AN ON-CHIP INTERCONNECT NETWORK," which is assigned to Qualcomm, with a filing date of September 8, 2006 and purported priority date of July 26, 2006.<sup>23</sup> Further, the cited reference was identified as "pertinent to" U.S. Patent Application No. 11/518,384.<sup>24</sup>

71. As explained above in paragraphs 23–32, U.S. Patent Application No. 11/518,384 was acquired by Qualcomm as a part of its 2013 wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology for nearly one-quarter of a billion

<sup>&</sup>lt;sup>22</sup> See Elm 3DS Innovations, Ltd. Liab. Co. v. Samsung Elecs. Co., Civil Action No. 14-1430-LPS-CJB, 2015 U.S. Dist. LEXIS 130699, at \*5-8 (D. Del. Sep. 29, 2015).

<sup>&</sup>lt;sup>23</sup> See Notice of References Cited dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

<sup>&</sup>lt;sup>24</sup> Office Action dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 29 of 155

dollars. As explained above in paragraph 30, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included a thorough analysis of Arteris' intellectual property, including the prosecution histories of patent applications and patents to be assigned from Arteris to Qualcomm, which included U.S. Patent Application No. 11/518,384, which cited the '818 patent, as explained in the preceding paragraph. On information and belief, this diligence further included interviews with patent prosecution counsel, the named inventors of such patents and patent applications, as well as such inventors' supervisors and project leads to gain a thorough understanding of the status and value of these patents and applications, including U.S. Patent Application No. 11/518,384, and whether any potential patent infringement issues were revealed in connection with the mapping of competitors' patents, such as the Asserted Patents, including the '818 patent, onto Arteris patents and patent applications that cover Arteris' Network on Chip ("NoC") technology being acquired by Qualcomm for \$224 million. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

72. On information and belief, Qualcomm sought to obtain valid and enforceable

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 30 of 155

patents for itself.

73. On information and belief, Qualcomm was aware of, and considered and analyzed the inventions described and claimed in, all patents and patent applications cited during the prosecution of its own patent applications, including for patents and patent applications that it acquired.

74. On information and belief, Qualcomm monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

75. On information and belief, Qualcomm was aware of and considered the '818 patent, and its actual or potential applicability to its own current products and product roadmaps, including the products described herein.

76. On information and belief, Qualcomm has expertise in the subject matter of the U.S. Patent Application No. 11/518,384 and the '818 patent and possesses sufficient technical competence to understand the scope of such application and patent.

77. As explained above in paragraphs 23–32, Qualcomm wholesale acquired a substantial part of Arteris's NoC business, engineering team, and technology for nearly onequarter of a billion dollars. As explained above in paragraphs 31-32, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included thorough analysis and assessment of potential patent infringement by Arteris and the Arteris Network on Chip ("NoC") technology to be acquired by Qualcomm. On information and belief, such diligence included interviews with the 43 Arteris engineers that Qualcomm hired

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 31 of 155

as part of the acquisition, including key employees such as Arteris' Chief Technical Officer, Philippe Martin, to learn the full scope of such employees knowledge of competing NoC technologies and associated intellectual property-such as Philips' NoC technology and the Asserted Patents, including the '818 patent-and any partnerships that Arteris might have explored with competitors such as Philips and the information that Arteris learned from Philips. As also noted above in paragraph 32, on information and belief, the aforementioned diligence revealed to Qualcomm no later than October 2013 the multiple pre-2010 meetings, disclosure of Philips NoC technical information to Arteris, and potential collaboration between Arteris and Philips discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, including the '818 patent, as discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris had knowledge that Arteris, Arteris' customers, and/or Arteris' end users infringed the Asserted Patents, including the '818 patent, or was willfully blind to such infringement, as discussed above in paragraphs 33-44. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, Mr. Philippe

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 32 of 155

Martin, and other sources, will further confirm the details of Qualcomm's diligence, and the information it learned as part of that diligence, as well as information that Qualcomm learned from the ongoing employment of 43 Arteris engineers, including Arteris' Chief Technical Offer, Mr. Philippe Martin, about Arteris' knowledge that it, its customers, and/or its end users infringed the Asserted Patents, including the '818 patent, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1).

78. On information and belief, by virtue of Philips' and the '818 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, Qualcomm's desire to obtain valid and enforceable patents, Qualcomm's knowledge of the '818 patent via citation in the aforementioned patent application, and Qualcomm's substantial technical and legal diligence in connection with its wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology by Qualcomm for nearly one-quarter of a billion dollars, Qualcomm had actual knowledge of the '818 patent around the time it issued or its U.S. application published, and in no event later than the October 11, 2013 execution date of the assignment of U.S. Patent Application No. 11/518,384 to Qualcomm.<sup>25</sup>

79. As explained above in paragraphs 45 through 51, the allegations of which are incorporated herein by reference, Qualcomm had actual knowledge of the Asserted Patents, including the '818 Patent, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as early as late 2013 or early 2014 through the communications between Qualcomm and Governing Dynamics regarding the Asserted Patents and through the evaluations of the Asserted Patents performed by Qualcomm.

<sup>&</sup>lt;sup>25</sup> See Elm 3DS Innovations, Ltd. Liab. Co. v. Samsung Elecs. Co., Civil Action No. 14-1430-LPS-CJB, 2015 U.S. Dist. LEXIS 130699, at \*5-8 (D. Del. Sep. 29, 2015).

# U.S. Patent No. 7,373,449

80. Plaintiff is the lawful owner of all right, title, and interest in United States Patent No. 7,373,449 (the "'449 patent"), entitled "APPARATUS AND METHOD FOR COMMUNICATING IN AN INTEGRATED CIRCUIT," including the right to sue and to recover for infringement thereof. The '449 patent was duly and legally issued on May 13, 2008, naming Andrei Radulescu and Kees Gerard Willem Goossens as inventors. A copy of the '449 patent is attached hereto as Exhibit 2.

81. The '449 patent has 18 claims: 2 independent claims and 16 dependent claims.

82. The '449 patent covers SoCs that have a resource manager that manages network resources by determining whether the resources (i.e., communication channels and connection properties) are available.

83. The claims of the '449 patent, including claim 10 (reproduced below), recite at least

these inventive concepts of the '449 patent.

10. Method for exchanging messages in an integrated circuit comprising a plurality of modules, the messages between the modules being exchanged over connections via a network, wherein said connections comprises a set of communication channels each having a set of connection properties, any communication channel being independently configurable, wherein said connection through the network supports transactions comprising at least one of outgoing messages from the first module to the second module and return messages from the second module to the first module and further comprising the steps of:

the first module issuing a request for a connection with the second module to a communication manager, wherein the request comprises desired connection properties associated with the sets of communication channels;

the communication manager forwarding the request to a resource manager;

the resource manager determining whether a target connection with the desired connection properties is available;

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 34 of 155

the resource manager responding with the availability of the target connection to the communication manager; and

the target connection between the first and second module being established based on the available properties of said communication channels of said connection.

(Exhibit 2, '449 patent at claim 10.) The subject matter described and claimed by the '449 patent, including the method for exchanging messages in an integrated circuit of claim 10, was an improvement in the functionality, performance, and efficiency of integrated circuits and the connections and communication networks thereof and was novel and not well-understood, routine, or conventional at the time of the '449 patent.

84. Defendants had knowledge of the '449 patent at least as of the December 19, 2022, date of the original Complaint (Dkt. 1).

85. The '449 patent was developed and patented by Philips Semiconductors, one of the largest semiconductor companies in the world. Because of the size and prominence of Philips in the tight-knit semiconductor industry, industry participants, including, on information and belief, Defendants, monitored patenting activity by Philips and reviewed, and were aware of shortly after their publication, at least the U.S. published patent applications and patents obtained by Philips in the semiconductor space, including the '449 patent. On information and belief, such industry participants, including Defendants, considered Philips' U.S. published patent applications and patent applications and patents in the semiconductor space, including the '449 patent, and such Philips U.S. published patent applications and patents in the semiconductor space, including the '449 patent, and such Philips U.S. published patent applications and patents and patents' actual or potential applicability to their own current products and product roadmaps, including the products described herein.

86. The '449 patent is widely and publicly known, and frequently referenced, in the tight-knit semiconductor industry, having been cited during prosecution of approximately 76 patent applications assigned to industry leaders such as Intel Corporation, Arm Limited, NEC

Corporation, IBM Corporation, and others.<sup>26</sup>

87. On information and belief, the '449 patent, or the application therefor, or a patent or application related to the '449 patent, was cited during prosecution of at least one patent application that was then or later assigned to or prosecuted by Arteris or a predecessor to or affiliate of Arteris.

88. The U.S. publication of the '449 patent's application, U.S. Patent Publication No. 2006/0041889, was cited and analyzed, after the '449 patent had been granted, during the prosecution of U.S. Patent No. 8,645,557, entitled "SYSTEM OF INTERCONNECTIONS FOR EXTERNAL FUNCTIONAL BLOCKS ON A CHIP PROVIDED WITH A SINGLE CONFIGURABLE COMMUNICATION PROTOCOL," which was originally assigned to Arteris SA or Arteris SAS, with an issue date of February 4, 2014, filing date of July 6, 2006, and purported priority date of April 12, 2006.<sup>27</sup> On information and belief, the applicant of U.S. Patent No. 8,645,557 was aware of the '449 patent because the U.S. publication of the '449 patent was repeatedly asserted in the Office Actions dated September 17, 2010, March 2, 2011, and November 28, 2011, and analyzed in Office Action Responses during prosecution of U.S. Patent No. 8,645,557.<sup>28</sup>

89. The '449 patent was cited during the prosecution of U.S. Patent Application No. 11/518,384, entitled "SYSTEM FOR MANAGING MESSAGES TRANSMITTED IN AN ON-CHIP INTERCONNECT NETWORK," an application originally assigned to Arteris SA or Arteris

<sup>&</sup>lt;sup>26</sup> <u>https://patents.google.com/patent/US7373449B2/en?oq=7%2c373%2c449</u> (last visited December 19, 2022).

 <sup>&</sup>lt;sup>27</sup> See <u>https://patents.google.com/patent/US8645557B2/en?oq=US8645557B2</u> (last visited December 19, 2022);
 Office Actions dated Mar. 9, 2010, Sept. 17, 2010, Mar. 2, 2011, and Nov. 28, 2011, File History of U.S. Pat. No. 8,645,557; Notices of References Cited dated Mar. 9, 2010, Nov. 28, 2011, Aug. 9, 2012, and Mar. 29, 2013, File History of U.S. Pat. No. 8,645,557; Office Action Responses dated Sept. 7, 2010, Feb. 14, 2011, Aug. 2, 2011, and May 25, 2012, File History of U.S. Pat. No. 8,645,557.
 <sup>28</sup> Id.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 36 of 155

SAS, with a filing date of September 8, 2006 and purported priority date of July 26, 2006.<sup>29</sup> On information and belief, the applicant analyzed and considered the '449 patent because the applicant filed a Notice of Abandonment after receiving an Office Action rejecting all claims over the '449 patent.<sup>30</sup>

90. On information and belief, as explained above in paragraph 61, the knowledge of Arteris SA and/or Arteris SAS (referred to as Arteris's "predecessors" for convenience) is imputed to Arteris, at least insofar as it relates to knowledge of patent prosecution and patents, including the '449 patent.

91. On information and belief, Arteris and its predecessors sought to obtain valid and enforceable patents for themselves.

92. On information and belief, Arteris and its predecessors were aware of, and considered and analyzed the inventions described and claimed in, all patents and patent applications cited during the prosecution of their own patent applications.

93. On information and belief, Arteris and its predecessors monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

94. On information and belief, Arteris and its predecessors were aware of and considered the '449 patent, and its actual or potential applicability to their own current products and product roadmaps, including the products described herein.

95. On information and belief, Arteris has expertise in the subject matter of the U.S. Patent No. 8,645,557, U.S. Patent Application No. 11/518,384, and the '449 patent and possesses sufficient technical competence to understand the scope of such patents and application.

<sup>&</sup>lt;sup>29</sup> Office Action dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

<sup>&</sup>lt;sup>30</sup> Notice of Abandonment dated July 23, 2010, File History of U.S. Pat. App. No. 11/518,384.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 37 of 155

96. On information and belief, Arteris additionally had knowledge of one or more of the Asserted Patents, including the '449 patent, by virtue of the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology, including the subject matter of the Asserted Patents, as discussed above in paragraphs 33–44.

97. On information and belief, by virtue of Philips' and the '449 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, Arteris's desire to obtain valid and enforceable patents, the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology and the subject matter of the Asserted Patents, and Arteris's knowledge of the '449 patent via citation during prosecution of the aforementioned patents and patent application, Arteris had actual knowledge of the '449 patent around the time it issued or its U.S. application published, and in no event later than the September 17, 2010 issue date of the Office Action for Arteris' U.S. Patent No. 8,645,557. By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents is imputed to Qualcomm.

98. On information and belief, the '449 patent, or the application therefor, or a patent or application related to the '449 patent, was cited during prosecution of at least one patent application that was then or later assigned to or prosecuted by Qualcomm.

99. The U.S. publication of the '449 patent's application, U.S. Patent Publication No.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 38 of 155

2006/0041889, was cited and analyzed, after the '449 patent had been granted, during the prosecution of U.S. Patent No. 8,645,557, entitled "SYSTEM OF INTERCONNECTIONS FOR EXTERNAL FUNCTIONAL BLOCKS ON A CHIP PROVIDED WITH A SINGLE CONFIGURABLE COMMUNICATION PROTOCOL," which is assigned to Qualcomm, with an issue date of February 4, 2014, filing date of July 6, 2006, and purported priority date of April 12, 2006.<sup>31</sup> On information and belief, Qualcomm was aware of the '449 patent because the U.S. publication of the '449 patent was repeatedly asserted in the Office Actions dated September 17, 2010, March 2, 2011, and November 28, 2011, and analyzed in Office Action Responses during prosecution of U.S. Patent No. 8,645,557.<sup>32</sup>

100. The '449 patent was cited during the prosecution of U.S. Patent Application No. 11/518,384, entitled "SYSTEM FOR MANAGING MESSAGES TRANSMITTED IN AN ON-CHIP INTERCONNECT NETWORK," which is assigned to Qualcomm, with a filing date of September 8, 2006 and purported priority date of July 26, 2006.<sup>33</sup> On information and belief, Qualcomm analyzed and considered the '449 patent because when U.S. Patent Application No. 11/518,384 was assigned to Qualcomm, it had been abandoned after receiving an Office Action rejecting all claims over the '449 patent.<sup>34</sup>

101. As explained above in paragraphs 23–32, U.S. Patent No. 8,645,557 and U.S. Patent Application No. 11/518,384 were acquired by Qualcomm as a part of its 2013 wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology for

<sup>&</sup>lt;sup>31</sup> See <u>https://patents.google.com/patent/US8645557B2/en?oq=US8645557B2</u> (last visited December 19, 2022); Office Actions dated Mar. 9, 2010, Sept. 17, 2010, Mar. 2, 2011, and Nov. 28, 2011, File History of U.S. Pat. No. 8,645,557; Notices of References Cited dated Mar. 9, 2010, Nov. 28, 2011, Aug. 9, 2012, and Mar. 29, 2013, File History of U.S. Pat. No. 8,645,557; Office Action Responses dated Sept. 7, 2010, Feb. 14, 2011, Aug. 2, 2011, and May 25, 2012, File History of U.S. Pat. No. 8,645,557. <sup>32</sup> Id.

<sup>&</sup>lt;sup>33</sup> Office Action dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

<sup>&</sup>lt;sup>34</sup> Notice of Abandonment dated July 23, 2010, File History of U.S. Pat. App. No. 11/518,384.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 39 of 155

nearly one-quarter of a billion dollars. As explained above in paragraph 30, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included a thorough analysis of Arteris' intellectual property, including the prosecution histories of patent applications and patents to be assigned from Arteris to Qualcomm, which included U.S. Patent No. 8,645,557 and U.S. Patent Application No. 11/518,384, which cited the '449 patent, as explained in the preceding paragraphs. On information and belief, this diligence further included interviews with patent prosecution counsel, the named inventors of such patents and patent applications, as well as such inventors' supervisors and project leads to gain a thorough understanding of the status and value of these patents and applications, including U.S. Patent No. 8,645,557 and U.S. Patent Application No. 11/518,384, and whether any potential patent infringement issues were revealed in connection with the mapping of competitors' patents, such as the Asserted Patents, including the '449 patent, onto Arteris patents and patent applications that cover Arteris' Network on Chip ("NoC") technology being acquired by Qualcomm for \$224 million. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 40 of 155

102. On information and belief, Qualcomm sought to obtain valid and enforceable patents for itself.

103. On information and belief, Qualcomm was aware of, and considered and analyzed the inventions described and claimed in, all patents and patent applications cited during the prosecution of its own patent applications, including for patents and patent applications that it acquired.

104. On information and belief, Qualcomm monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

105. On information and belief, Qualcomm was aware of and considered the '449 patent, and its actual or potential applicability to its own current products and product roadmaps, including the products described herein.

106. On information and belief, Qualcomm has expertise in the subject matter of the U.S. Patent No. 8,645,557, U.S. Patent Application No. 11/518,384, and the '449 patent and possesses sufficient technical competence to understand the scope of such patents and application.

107. As explained above in paragraphs 23–32, Qualcomm wholesale acquired a substantial part of Arteris's NoC business, engineering team, and technology for nearly onequarter of a billion dollars. As explained above in paragraphs 31-32, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included thorough analysis and assessment of potential patent infringement by Arteris and the Arteris Network on Chip ("NoC") technology to be acquired by Qualcomm. On information

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 41 of 155

and belief, such diligence included interviews with the 43 Arteris engineers that Qualcomm hired as part of the acquisition, including key employees such as Arteris' Chief Technical Officer, Philippe Martin, to learn the full scope of such employees' knowledge of competing NoC technologies and associated intellectual property-such as Philips' NoC technology and the Asserted Patents, including the '449 patent—and any partnerships that Arteris might have explored with competitors such as Philips and the information that Arteris learned from Philips. As also noted above in paragraph 32, on information and belief, the aforementioned diligence revealed to Qualcomm no later than October 2013 the multiple pre-2010 meetings, disclosure of Philips NoC technical information to Arteris, and potential collaboration between Arteris and Philips discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, including the '449 patent, as discussed above in paragraphs 33-44. This diligence also revealed to Qualcomm no later than October 2013 that Arteris had knowledge that Arteris, Arteris' customers, and/or Arteris' end users infringed the Asserted Patents, including the '449 patent, or was willfully blind to such infringement, as discussed above in paragraphs 33–44. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case,

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 42 of 155

including from Arteris, Qualcomm, Mr. Philippe Martin, and other sources, will further confirm the details of Qualcomm's diligence, and the information it learned as part of that diligence, as well as information that Qualcomm learned from the ongoing employment of 43 Arteris engineers, including Arteris' Chief Technical Offer, Mr. Philippe Martin, about Arteris' knowledge that it, its customers, and/or its end users infringed the Asserted Patents, including the '449 patent, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1).

108. On information and belief, by virtue of Philips' and the '449 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, Qualcomm's desire to obtain valid and enforceable patents, Qualcomm's knowledge of the '449 patent via citation during the prosecution of the aforementioned patent and patent application, and Qualcomm's substantial technical and legal diligence in connection with its wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology by Qualcomm for nearly one-quarter of a billion dollars, Qualcomm had actual knowledge of the '449 patent around the time it issued or its U.S. application published, and in no event later than the October 11, 2013 execution date of the assignments of U.S. Patent No. 8,645,557 and U.S. Patent Application No. 11/518,384 to Qualcomm.<sup>35</sup>

109. As explained above in paragraphs 45 through 51, the allegations of which are incorporated herein by reference, Qualcomm had actual knowledge of the Asserted Patents, including the '449 Patent, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as early as late 2013 or early 2014 through the communications between Qualcomm and Governing

<sup>&</sup>lt;sup>35</sup> See Elm 3DS Innovations, Ltd. Liab. Co. v. Samsung Elecs. Co., Civil Action No. 14-1430-LPS-CJB, 2015 U.S. Dist. LEXIS 130699, at \*5-8 (D. Del. Sep. 29, 2015).

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 43 of 155

Dynamics regarding the Asserted Patents and through the evaluations of the Asserted Patents performed by Qualcomm.

# U.S. Patent No. 7,594,052

110. Plaintiff is the lawful owner of all right, title, and interest in United States Patent No. 7,594,052 ("'052 patent"), entitled "INTEGRATED CIRCUIT AND METHOD OF COMMUNICATION SERVICE MAPPING," including the right to sue and to recover for infringement thereof. The '052 patent was duly and legally issued on September 22, 2009, naming Andrei Radulescu and Kees Gerard Willem Goossens as inventors. A copy of the '052 patent is attached hereto as Exhibit 3.

111. The '052 patent has 7 claims: 3 independent claims and 4 dependent claims.

112. The '052 patent covers SoCs that offer differentiated intermodular communication services based on connections with corresponding properties. The covered SoCs map a requested communication service to a connection based on communication and connection properties.

113. The claims of the '052 patent, including claim 6 (reproduced below), recite at least these inventive concepts of the '052 patent.

6. Method of communication service mapping in an integrated circuit, having a plurality of processing modules (M, S), wherein at least one first of said processing modules (M) requests at least one communication service to at least one second processing module (S) based on specific communication properties and at least one communication service identification, wherein said at least one communication service identification comprises at least one communication thread or at least one address range, said address range for identifying one or more second processing modules (S) or a memory region within said one or more second processing modules (S), comprising the steps of:

coupling said plurality of processing modules (M, S) by an interconnect means (N) and

enabling a connection based communication having a set of connection properties,

controlling the communication between said at least one first of said plurality of processing modules (M) and said interconnect means (N) by at least one network interface (NI) associated to said at least one first of said processing modules,

mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification.

(Exhibit 3, '052 patent at claim 6.) The subject matter described and claimed by the '052 patent, including the method of communication service mapping in an integrated circuit of claim 6, was an improvement in the functionality, performance, and efficiency of integrated circuits and the connections and communication networks thereof and was novel and not well-understood, routine, or conventional at the time of the '052 patent.

114. Defendants had knowledge of the '052 patent at least as of the December 19, 2022,date of the original Complaint (Dkt. 1).

115. The '052 patent was developed and patented by Philips Semiconductors, one of the largest semiconductor companies in the world. Because of the size and prominence of Philips in the tight-knit semiconductor industry, industry participants, including, on information and belief, Defendants, monitored patenting activity by Philips and reviewed, and were aware of shortly after their publication, at least the U.S. published patent applications and patents obtained by Philips in the semiconductor space, including the '052 patent. On information and belief, such industry participants, including Defendants, considered Philips' U.S. published patent applications and patent applications and patents in the semiconductor space, including the '052 patent, and such Philips U.S. published patent applications and patents in the semiconductor space, including the '052 patent, and such Philips U.S. published patent applications and patents in the semiconductor space, including the '052 patent, and such Philips U.S. published patent applications and patents in the semiconductor space, including the '052 patent, and such Philips U.S. published patent applications and patents' actual or potential applicability to their own current products and product roadmaps, including the products described herein.

116. The '052 patent is widely and publicly known, and frequently referenced, in the tight-knit semiconductor industry, having been cited during prosecution of approximately 19

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 45 of 155

patent applications assigned to industry leaders such as Samsung Electronics Co., Texas Instruments Incorporated, and others.<sup>36</sup>

117. On information and belief, the '052 patent or the application therefor, or a patent or application related to the '052 patent, was cited during prosecution of at least one patent application that was then or later assigned to or prosecuted by Arteris or a predecessor to or affiliate of Arteris.

118. The U.S. publication of the '052 patent's application, U.S. Patent Publication No. 2007/0186018, was cited by Arteris on October 4, 2022, after the '052 patent had been granted, during the prosecution of U.S. Patent Application No. 17/665,578, entitled "SYSTEM AND METHOD FOR SYNTHESIS OF CONNECTIVITY TO AN INTERCONNECT IN A MULTI-PROTOCOL SYSTEM-ON-CHIP (SoC)," assigned to Arteris, with a filing date of February 6, 2022 and purported priority date of February 12, 2021.<sup>37</sup>

119. The U.S. publication of the '052 patent's application, U.S. Patent Publication No. 2007/0186018, was cited by Arteris on October 4, 2022, after the '052 patent had been granted, during the prosecution of U.S. Patent Application No. 17/116,344, issued as U.S. Patent No. 11,657,203 entitled "MULTI-PHASE TOPOLOGY SYNTHESIS OF A NETWORK-ON-CHIP (NoC)," assigned to Arteris, with a filing date of December 9, 2020 and purported priority date of December 27, 2019.<sup>38</sup>

120. The U.S. publication of the '052 patent's application, U.S. Patent Publication No. 2007/0186018, was cited by Arteris on October 4, 2022, after the '052 patent had been granted, during the prosecution of U.S. Patent Application No. 17/129,950, issued as U.S. Patent No. 11,601,357, entitled "SYSTEM AND METHOD FOR GENERATION OF QUALITY METRICS

<sup>&</sup>lt;sup>36</sup> <u>https://patents.google.com/patent/US7594052B2/en?oq=7%2c594%2c052</u> (last visited December 19, 2022).

<sup>&</sup>lt;sup>37</sup> *Id.*; Information Disclosure Statement dated Oct. 4, 2022, File History of U.S. Pat. App. No. 17/665,578. <sup>38</sup> <u>https://patents.google.com/patent/US11657203B2/en?oq=11%2c657%2c203</u> (last visited Aug. 3, 2023);

Information Disclosure Statement dated Oct. 4, 2022, File History of U.S. Pat. App. No. 17/116,344.

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 46 of 155

FOR OPTIMIZATION TASKS IN TOPOLOGY SYNTHESIS OF A NETWORK," assigned to Arteris, with a filing date of December 22, 2020 and purported priority date of December 22, 2020.<sup>39</sup>

121. The U.S. publication of the '052 patent's application, U.S. Patent Publication No. 2007/0186018, was cited by Arteris on October 4, 2022, after the '052 patent had been granted, during the prosecution of U.S. Patent Application No. 16/872,096, issued as U.S. Patent No. 11,665,776, entitled "SYSTEM AND METHOD FOR SYNTHESIS OF A NETWORK-ON-CHIP FOR DEADLOCK-FREE TRANSFORMATION," assigned to Arteris, with a filing date of May 11, 2020 and purported priority date of December 27, 2019.<sup>40</sup>

122. The U.S. publication of the '052 patent's application, U.S. Patent Publication No. 2007/0186018, was cited by Arteris on October 4, 2022, after the '052 patent had been granted, during the prosecution of U.S. Patent Application No. 17/683,361, issued as U.S. Patent No. 11,675,942, entitled "OPTIMIZATION OF PARAMETERS FOR SYNTHESIS OF A TOPOLOGY USING A DISCRIMINANT FUNCTION MODULE," assigned to Arteris, with a filing date of March 1, 2022 and purported priority date of December 26, 2020.<sup>41</sup>

123. The U.S. publication of the '052 patent's application, U.S. Patent Publication No. 2007/0186018, was cited against Arteris on June 23, 2022 by a European Search Report, after the '052 patent had been granted, during the prosecution of European Patent Application No. 22156657.3, issued as European Patent No. 4,044,563, entitled "SYSTEM AND METHOD FOR SYNTHESIS OF CONNECTIVITY TO AN INTERCONNECT IN A MULTI-PROTOCOL

 <sup>&</sup>lt;sup>39</sup> <u>https://patents.google.com/patent/US11601357B2/en?oq=11%2c601%2c357</u> (last visited Aug. 3, 2023);
 Information Disclosure Statement dated Oct. 4, 2022, File History of U.S. Pat. App. No. 17/129,950.
 <sup>40</sup> <u>https://patents.google.com/patent/US11665776B2/en?oq=11%2c665%2c776</u> (last visited Aug. 3, 2023);

Information Disclosure Statement dated Oct. 4, 2022, File History of U.S. Pat. App. No. 16/872,096. <sup>41</sup> https://patents.google.com/patent/US11675942B2/en?oq=11%2c675%2c942 (last visited Aug. 3, 2023);

Information Disclosure Statement dated Oct. 4, 2022, File History of U.S. Pat. App. No. 17/683,361.

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 47 of 155

SYSTEM-ON-CHIP (SOC)," assigned to Arteris, with a filing date of February 14, 2022 and purported priority date of February 12, 2021.<sup>42</sup>

124. On information and belief, as explained above in paragraph 61, the knowledge of Arteris SA and/or Arteris SAS (referred to as Arteris's "predecessors" for convenience) is imputed to Arteris, at least insofar as it relates to knowledge of patent prosecution and patents, including the '052 patent.

125. On information and belief, Arteris and its predecessors sought to obtain valid and enforceable patents for themselves.

126. On information and belief, Arteris and its predecessors were aware of, and considered and analyzed the inventions described and claimed in, all patents and patent applications cited during the prosecution of their own patent applications.

127. On information and belief, Arteris and its predecessors monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

128. On information and belief, Arteris and its predecessors were aware of and considered the '052 patent, and its actual or potential applicability to their own current products and product roadmaps, including the products described herein.

129. On information and belief, Arteris has expertise in the subject matter of the U.S. Patent Application Nos. 17/665,578, 17/116,344, 17/129,950, 16/872,096, 17/683,361, European Patent No. 4,044,563, and the '052 patent and possesses sufficient technical competence to understand the scope of such applications and patents.

130. On information and belief, Arteris additionally had knowledge of one or more of

<sup>&</sup>lt;sup>42</sup> <u>https://patents.google.com/patent/EP4044563A1/en?oq=oEP+4%2c044%2c563</u> (last visited Aug. 3, 2023).

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 48 of 155

the Asserted Patents, including the '052 patent, by virtue of the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology, including the subject matter of the Asserted Patents, as discussed above in paragraphs 33–44.

131. On information and belief, by virtue of Philips' and the '052 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, Arteris's desire to obtain valid and enforceable patents, the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology and the subject matter of the Asserted Patents, and Arteris's knowledge of the '052 patent via citation during prosecution of the aforementioned patent applications, Arteris had actual knowledge of the '052 patent around the time it issued or its U.S. application published, and in no event later than the October 4, 2022 date of the Information Disclosure Statement in U.S. Patent Application No. 17/665,578.<sup>43</sup> By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents is imputed to Qualcomm.

132. On information and belief, Qualcomm monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

133. On information and belief, Qualcomm was aware of and considered the '052 patent,

<sup>&</sup>lt;sup>43</sup> See Elm 3DS Innovations, Ltd. Liab. Co. v. Samsung Elecs. Co., Civil Action No. 14-1430-LPS-CJB, 2015 U.S. Dist. LEXIS 130699, at \*5-8 (D. Del. Sep. 29, 2015).

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 49 of 155

and its actual or potential applicability to its own current products and product roadmaps, including the products described herein.

134. On information and belief, Qualcomm has expertise in the subject matter of the '052 patent and possesses sufficient technical competence to understand the scope of such patent.

As explained above in paragraphs 23-32, Qualcomm wholesale acquired a 135. substantial part of Arteris's NoC business, engineering team, and technology for nearly onequarter of a billion dollars. As explained above in paragraphs 31-32, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included thorough analysis and assessment of potential patent infringement by Arteris and the Arteris Network on Chip ("NoC") technology to be acquired by Qualcomm. On information and belief, such diligence included interviews with the 43 Arteris engineers that Qualcomm hired as part of the acquisition, including key employees such as Arteris' Chief Technical Officer, Philippe Martin, to learn the full scope of such employees knowledge of competing NoC technologies and associated intellectual property-such as Philips' NoC technology and the Asserted Patents, including the '052 patent—and any partnerships that Arteris might have explored with competitors such as Philips and the information that Arteris learned from Philips. As also noted above in paragraph 32, on information and belief, the aforementioned diligence revealed to Qualcomm no later than October 2013 the multiple pre-2010 meetings, disclosure of Philips NoC technical information to Arteris, and potential collaboration between Arteris and Philips discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris was aware of, and interested in, the technology described

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 50 of 155

in one or more Asserted Patents, including the '052 patent, as discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris had knowledge that Arteris, Arteris' customers, and/or Arteris' end users infringed the Asserted Patents, including the '052 patent, or was willfully blind to such infringement, as discussed above in paragraphs 33-44. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, Mr. Philippe Martin, and other sources, will further confirm the details of Qualcomm's diligence, and the information it learned as part of that diligence, as well as information that Qualcomm learned from the ongoing employment of 43 Arteris engineers, including Arteris' Chief Technical Offer, Mr. Philippe Martin, about Arteris' knowledge that it, its customers, and/or its end users infringed the Asserted Patents, including the '052 patent, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1).

136. On information and belief, by virtue of Philips' and the '052 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, and Qualcomm's substantial technical and legal diligence in connection with its wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology by Qualcomm

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 51 of 155

for nearly one-quarter of a billion dollars, Qualcomm had actual knowledge of the '052 patent around the time it issued or its U.S. application published, and in no event later than the date of this Complaint.

137. As explained above in paragraphs 45 through 51, the allegations of which are incorporated herein by reference, Qualcomm had actual knowledge of the Asserted Patents, including the '052 Patent, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as early as late 2013 or early 2014 through the communications between Qualcomm and Governing Dynamics regarding the Asserted Patents and through the evaluations of the Asserted Patents performed by Qualcomm.

#### U.S. Patent No. 7,769,893

138. Plaintiff is the lawful owner of all right, title, and interest in United States Patent No. 7,769,893 ("'9893 patent"), entitled "INTEGRATED CIRCUIT AND METHOD FOR ESTABLISHING TRANSACTIONS," including the right to sue and to recover for infringement thereof. The '9893 patent was duly and legally issued on August 3, 2010, naming Kees Gerard Willem Goossens as inventor. A copy of the '9893 patent is attached hereto as Exhibit 4.

139. The '9893 patent has 11 claims: 2 independent claims and 9 dependent claims.

140. The '9893 patent covers SoCs that use an address translation unit, which is part of a network interface, for address mapping, where the address translation unit determines both the location of a message receiving module and a location within the message receiving module.

141. The claims of the '9893 patent, including claim 4 (reproduced below), recite at least these inventive concepts of the '9893 patent.

4. A method for exchanging messages in an integrated circuit comprising a plurality of modules, the messages between the plurality of modules being

exchanged via a network wherein a message issued by an addressing module M comprises:

first information indicative of a location of an addressed message receiving module S within the network and is comprised of (1) a connection identifier identifying two or more message receiving modules S and (2) an identifier of a passive network interface means associated with the addressed message receiving module S, and second information indicative of a particular location within the addressed message receiving module S, such as a memory, or a register address, the method including the steps of:

(a) issuing from said addressing module M a message request including said first information, said second information, and data and/or connection properties to an address translation unit included as part of an active network interface module associated with said addressing module M,

(b) arranging, at said address translation unit, the first and the second information comprising said issued message as a single address,

(c) determining, at said address translation unit, which message receiving module S is being addressed in said message request issued from said addressing module M based on said single address, and

(d) further determining, at said address translation unit, the particular location within the addressed message receiving module S based on said single address.

(Exhibit 4, '9893 patent at claim 4.) The subject matter described and claimed by the '9893 patent, including the method for exchanging messages in an integrated circuit of claim 4, was an improvement in the functionality, performance, and efficiency of integrated circuits and the connections and communication networks thereof and was novel and not well-understood, routine, or conventional at the time of the '9893 patent.

142. Defendants had knowledge of the '9893 patent at least as of the December 19, 2022, date of the original Complaint (Dkt. 1).

143. The '9893 patent was developed and patented by Philips Semiconductors, one of the largest semiconductor companies in the world. Because of the size and prominence of Philips in the tight-knit semiconductor industry, industry participants, including, on information and

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 53 of 155

belief, Defendants, monitored patenting activity by Philips and reviewed, and were aware of shortly after their publication, at least the U.S. published patent applications and patents obtained by Philips in the semiconductor space, including the '9893 patent. On information and belief, such industry participants, including Defendants, considered Philips' U.S. published patent applications and patents in the semiconductor space, including the '9893 patent, and such Philips U.S. published patent applications and patents' actual or potential applicability to their own current products and product roadmaps, including the products described herein.

144. The '9893 patent is widely and publicly known, and frequently referenced, in the tight-knit semiconductor industry, having been cited during prosecution of approximately 76 patent applications assigned to industry leaders such as Intel Corporation, Arm Limited, NEC Corporation, IBM Corporation, and others.<sup>44</sup>

145. On information and belief, the '9893 patent, or the application therefor, or a patent or application related to the '9893 patent, was cited during prosecution of at least one patent application that was then or later assigned to or prosecuted by Arteris or a predecessor to or affiliate of Arteris.

146. The U.S. publication of the '9893 patent's application, U.S. Patent Publication No. 2006/0095920, was cited during the prosecution of U.S. Patent Application No. 11/518,384, entitled "SYSTEM FOR MANAGING MESSAGES TRANSMITTED IN AN ON-CHIP INTERCONNECT NETWORK," an application originally assigned to Arteris SA or Arteris SAS, with a filing date of September 8, 2006 and purported priority date of July 26, 2006.<sup>45</sup> Further, the cited reference was identified as "pertinent to" U.S. Patent Application No. 11/518,384.<sup>46</sup>

<sup>&</sup>lt;sup>44</sup> <u>https://patents.google.com/patent/US7769893B2/en?oq=7%2c769%2c893</u> (last visited December 19, 2022).

<sup>&</sup>lt;sup>45</sup> Notice of References Cited dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

<sup>&</sup>lt;sup>46</sup> Office Action dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 54 of 155

147. The U.S. publication of the '9893 patent's application, U.S. Patent Publication No. 2006/0095920, was cited, after the '9893 patent had been granted, during the prosecution of U.S. Patent No. 9,471,538, entitled "NETWORK ON A CHIP SOCKET PROTOCOL," which was originally assigned to Arteris SAS, with an issue date of October 18, 2016 and filing date of September 25, 2012.<sup>47</sup>

148. The U.S. publication of the '9893 patent's application, U.S. Patent Publication No. 2006/0095920, was cited, after the '9893 patent had been granted, in the International Search Report of January 10, 2014 for International Patent Publication No. WO/2014/052261 A1 (PCT Application No. PCT/US2013/061295), entitled "NETWORK ON A CHIP SOCKET PROTOCOL," which was originally assigned to Arteris SAS, with a filing date of September 24, 2013.<sup>48</sup>

149. On information and belief, as explained above in paragraph 61, the knowledge of Arteris SA and/or Arteris SAS (referred to as Arteris's "predecessors" for convenience) is imputed to Arteris, at least insofar as it relates to knowledge of patent prosecution and patents, including the '9893 patent.

150. On information and belief, Arteris and its predecessors sought to obtain valid and enforceable patents for themselves.

151. On information and belief, Arteris and its predecessors were aware of, and considered and analyzed the inventions described and claimed in, all patents and applications cited during the prosecution of their own patent applications.

152. On information and belief, Arteris and its predecessors monitored U.S. published

<sup>&</sup>lt;sup>47</sup> <u>https://patents.google.com/patent/US7769893B2/en?oq=7%2c769%2c893</u> (last visited December 19, 2022); Information Disclosure Statement dated Aug. 8, 2014, File History of U.S. Pat. No. 9,471,538.

<sup>&</sup>lt;sup>48</sup> https://patents.google.com/patent/WO2014052261A1/en?oq=WO%2f2014%2f052261 (last visited Aug. 3, 2023).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 55 of 155

patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

153. On information and belief, Arteris and its predecessors were aware of and considered the '9893 patent, and its actual or potential applicability to their own current products and product roadmaps, including the products described herein.

154. On information and belief, Arteris has expertise in the subject matter of the U.S. Patent Application No. 11/518,384, U.S. Patent No. 9,471,538, International Patent Publication No. WO/2014/052261 A1, and the '9893 patent and possesses sufficient technical competence to understand the scope of such patents and application.

155. On information and belief, Arteris additionally had knowledge of one or more of the Asserted Patents, including the '9893 patent, by virtue of the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology, including the subject matter of the Asserted Patents, as discussed above in paragraphs 33–44.

156. On information and belief, by virtue of Philips' and the '9893 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, Arteris's desire to obtain valid and enforceable patents, the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology and the subject matter of the Asserted Patents, and Arteris's knowledge of the '9893 patent via citation during prosecution of the aforementioned patents and patent application, Arteris had actual knowledge of the '9893 patent around the time it issued or its U.S. application

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 56 of 155

published, and in no event later than the November 23, 2009 Office Action for U.S. Patent Application No. 11/518,384.<sup>49</sup> By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents is imputed to Qualcomm.

157. On information and belief, the '9893 patent, or the application therefor, or a patent or application related to the '9893 patent, was cited during prosecution of at least one patent application that was then or later assigned to or prosecuted by Qualcomm.

158. The '9893 patent was cited by Qualcomm during the prosecution of U.S. Patent No. 8,861,410, entitled "METHOD AND APPARATUS FOR SCALABLE NETWORK TRANSACTION IDENTIFIER FOR INTERCONNECTS," assigned to Qualcomm, with an issue date of October 14, 2014 and filing date of October 31, 2011.<sup>50</sup>

159. The '9893 patent was cited by Qualcomm during the prosecution of U.S. Patent No. 8,838,861, entitled "METHODS AND APPARATUSES FOR TRACE MULTICAST ACROSS A BUS STRUCTURE, AND RELATED SYSTEMS," assigned to Qualcomm, with an issue date of September 16, 2014, filing date of June 25, 2012, and purported priority date of May 9, 2012.<sup>51</sup>

160. The U.S. publication of the '9893 patent's application, U.S. Patent Publication No. 2006/0095920, was cited, after the '9893 patent had been granted, during the prosecution of U.S. Pat. No. 9,471,538, entitled "NETWORK ON A CHIP SOCKET PROTOCOL," which is assigned

<sup>&</sup>lt;sup>49</sup> See Elm 3DS Innovations, Ltd. Liab. Co. v. Samsung Elecs. Co., Civil Action No. 14-1430-LPS-CJB, 2015 U.S. Dist. LEXIS 130699, at \*5-8 (D. Del. Sep. 29, 2015).

<sup>&</sup>lt;sup>50</sup> <u>https://patents.google.com/patent/US7769893B2/en?oq=7%2c769%2c893</u> (last visited December 19, 2022); Information Disclosure Statement dated Oct. 24, 2011, File History of U.S. Pat. No. 8,861,410.

<sup>&</sup>lt;sup>51</sup> <u>https://patents.google.com/patent/US7769893B2/en?oq=7%2c769%2c893</u> (last visited December 19, 2022); Information Disclosure Statement dated June 22, 2012, File History of U.S. Pat. No. 8,838,861.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 57 of 155

to Qualcomm, with an issue date of October 18, 2016 and filing date of September 25, 2012.<sup>52</sup>

161. The U.S. publication of the '9893 patent's application, U.S. Patent Publication No. 2006/0095920, was cited during the prosecution of U.S. Patent Application No. 11/518,384, entitled "SYSTEM FOR MANAGING MESSAGES TRANSMITTED IN AN ON-CHIP INTERCONNECT NETWORK," which is assigned to Qualcomm, with a filing date of September 8, 2006 and purported priority date of July 26, 2006.<sup>53</sup> Further, the cited reference was identified as "pertinent to" U.S. Patent Application No. 11/518,384.<sup>54</sup>

162. The U.S. publication of the '9893 patent's application, U.S. Patent Publication No. 2006/0095920, was cited in the January 10, 2014 International Search Report for Japanese Patent Application No. 2015/533265, issued as Japanese Patent No. 6,144,348, entitled "NETWORK ON A CHIP SOCKET PROTOCOL," which is assigned to Qualcomm, with a filing date of September 24, 2013 and a purported priority date of September 25, 2012.<sup>55</sup>

163. As explained above in paragraphs 23–32, U.S. Patent Application No. 11/518,384 and U.S. Pat. No. 9,471,538 were acquired by Qualcomm as a part of its 2013 wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology for nearly one-quarter of a billion dollars. As explained above in paragraph 30, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included a thorough analysis of Arteris' intellectual property, including the

<sup>&</sup>lt;sup>52</sup> <u>https://patents.google.com/patent/US7769893B2/en?oq=7%2c769%2c893</u> (last visited December 19, 2022); Information Disclosure Statement dated Aug. 8, 2014, File History of U.S. Pat. No. 9,471,538.

<sup>&</sup>lt;sup>53</sup> Notice of References Cited dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

<sup>&</sup>lt;sup>54</sup> Office Action dated Nov. 23, 2009, File History of U.S. Pat. App. No. 11/518,384.

<sup>&</sup>lt;sup>55</sup> <u>https://patentscope.wipo.int/search/en/detail.jsf?docId=JP274260957&\_fid=WO2014052261</u> (last visited Aug. 3, 2023); <u>https://patents.google.com/patent/JP6144348B2/en?oq=JP6144348</u> (last visited Aug. 3, 2023).

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 58 of 155

prosecution histories of patent applications and patents to be assigned from Arteris to Qualcomm, which included U.S. Patent Application No. 11/518,384 and U.S. Pat. No. 9,471,538, which cited the '9893 patent, as explained in the preceding paragraphs. On information and belief, this diligence further included interviews with patent prosecution counsel, the named inventors of such patents and patent applications, as well as such inventors' supervisors and project leads to gain a thorough understanding of the status and value of these patents and applications, including U.S. Patent Application No. 11/518,384 and U.S. Pat. No. 9,471,538, and whether any potential patent infringement issues were revealed in connection with the mapping of competitors' patents, such as the Asserted Patents, including the '9893 patent, onto Arteris patents and patent applications that cover Arteris' Network on Chip ("NoC") technology being acquired by Qualcomm for \$224 million. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

164. On information and belief, Qualcomm sought to obtain valid and enforceable patents for itself.

165. On information and belief, Qualcomm was aware of, and considered and analyzed the inventions described and claimed in, all patents and patent applications cited during the prosecution of its own patent applications, including for patents and patent applications that it

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 59 of 155

acquired.

166. On information and belief, Qualcomm monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

167. On information and belief, Qualcomm was aware of and considered the '9893 patent, and its actual or potential applicability to its own current products and product roadmaps, including the products described herein.

168. On information and belief, Qualcomm has expertise in the subject matter of the U.S. Patent No. 8,861,410, U.S. Patent No. 8,838,861, U.S. Pat. No. 9,471,538, U.S. Patent Application No. 11/518,384, Japanese Patent No. 6,144,348, and the '9893 patent and possesses sufficient technical competence to understand the scope of such patents and application.

169. As explained above in paragraphs 23–32, Qualcomm wholesale acquired a substantial part of Arteris's NoC business, engineering team, and technology for nearly onequarter of a billion dollars. As explained above in paragraphs 31-32, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included thorough analysis and assessment of potential patent infringement by Arteris and the Arteris Network on Chip ("NoC") technology to be acquired by Qualcomm. On information and belief, such diligence included interviews with the 43 Arteris engineers that Qualcomm hired as part of the acquisition, including key employees such as Arteris' Chief Technical Officer, Philippe Martin, to learn the full scope of such employees knowledge of competing NoC technology and the

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 60 of 155

Asserted Patents, including the '9893 patent-and any partnerships that Arteris might have explored with competitors such as Philips and the information that Arteris learned from Philips. As also noted above in paragraph 32, on information and belief, the aforementioned diligence revealed to Qualcomm no later than October 2013 the multiple pre-2010 meetings, disclosure of Philips NoC technical information to Arteris, and potential collaboration between Arteris and Philips discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, including the '9893 patent, as discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris had knowledge that Arteris, Arteris' customers, and/or Arteris' end users infringed the Asserted Patents, including the '9893 patent, or was willfully blind to such infringement, as discussed above in paragraphs 33–44. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, Mr. Philippe Martin, and other sources, will further confirm the details of Qualcomm's diligence, and the information it learned as part of that diligence, as well as information that Qualcomm learned from the ongoing employment of 43 Arteris engineers, including Arteris' Chief Technical Offer, Mr.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 61 of 155

Philippe Martin, about Arteris' knowledge that it, its customers, and/or its end users infringed the Asserted Patents, including the '9893 patent, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1).

170. On information and belief, by virtue of Philips' and the '9893 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, Qualcomm's desire to obtain valid and enforceable patents, Qualcomm's knowledge of the '9893 patent via citation during the prosecution of the aforementioned patents and patent application, and Qualcomm's substantial technical and legal diligence in connection with its wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology by Qualcomm for nearly one-quarter of a billion dollars, Qualcomm had actual knowledge of the '9893 patent around the time it issued or its U.S. application published, and in no event later than the October 24, 2011 Information Disclosure Statement in U.S. Patent No. 8,861,410.<sup>56</sup>

171. As explained above in paragraphs 45 through 51, the allegations of which are incorporated herein by reference, Qualcomm had actual knowledge of the Asserted Patents, including the '9893 Patent, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as early as late 2013 or early 2014 through the communications between Qualcomm and Governing Dynamics regarding the Asserted Patents and through the evaluations of the Asserted Patents performed by Qualcomm.

<sup>&</sup>lt;sup>56</sup> See Elm 3DS Innovations, Ltd. Liab. Co. v. Samsung Elecs. Co., Civil Action No. 14-1430-LPS-CJB, 2015 U.S. Dist. LEXIS 130699, at \*5-8 (D. Del. Sep. 29, 2015).

# U.S. Patent No. 8,072,893

172. Plaintiff is the lawful owner of all right, title, and interest in United States Patent No. 8,072,893 ("2893 patent"), entitled "INTEGRATED CIRCUIT WITH DATA COMMUNICATION NETWORK AND IC DESIGN METHOD," including the right to sue and to recover for infringement thereof. The '2893 patent was duly and legally issued on December 6, 2011, naming John Dielissen and Edwin Rijpkema as inventors. A copy of the '2893 patent is attached hereto as Exhibit 5.

173. The '2893 patent has 12 claims: 5 independent claims and 7 dependent claims.

174. The '2893 patent covers SoCs that improve data communication speed and frequency synchronization between processing units through the use of packetized data (comprising N data elements) and introduction of a delay (of M\*N cycles) on a communication channel for communication synchronization, with such delay correlated to the size (N) of the data packet.

175. The claims of the '2893 patent, including claim 10 (reproduced below), recite at least these inventive concepts of the '2893 patent.

10. A method of designing an integrated circuit comprising a plurality of functional blocks, and a data communication network comprising a plurality of network stations being interconnected via a plurality of communication channels for communicating data packages between the functional blocks, each data package comprising N data elements including a data element comprising routing information for the network stations, N being an integer of at least two, the plurality of network stations comprising a plurality of data routers and a plurality of network interfaces, each of the data routers being coupled to a functional block via a network interface; the method comprising the acts of:

identifying a first communication channel between a first network station and a second network station that has a data transfer delay exceeding a predefined delay threshold; and

in response to the identifying act, inserting M\*N data storage elements into the data

communication network, M being a positive integer, for introducing a delay of M\*N cycles on the first communication channel.

(Exhibit 5, '2893 patent at claim 10.) The subject matter described and claimed by the '2893 patent, including the method of designing an integrated circuit of claim 10, was an improvement in the functionality, performance, and efficiency of integrated circuits and the connections and communication networks thereof and was novel and not well-understood, routine, or conventional at the time of the '2893 patent.

176. Defendants had knowledge of the '2893 patent at least as of the December 19, 2022, date of the original Complaint (Dkt. 1).

177. The '2893 patent was developed and patented by Philips Semiconductors, one of the largest semiconductor companies in the world. Because of the size and prominence of Philips in the tight-knit semiconductor industry, industry participants, including, on information and belief, Defendants, monitored patenting activity by Philips and reviewed, and were aware of shortly after their publication, at least the U.S. published patent applications and patents obtained by Philips in the semiconductor space, including the '2893 patent. On information and belief, such industry participants, including Defendants, considered Philips' U.S. published patent applications and patents and patents in the semiconductor space, including the '2893 patent, and such Philips U.S. published patent applications and patents' actual or potential applicability to their own current products and product roadmaps, including the products described herein.

178. The '2893 patent is widely and publicly known, and frequently referenced, in the tight-knit semiconductor industry, having been cited during prosecution of approximately 13 patent applications assigned to industry leaders such as Intel Corporation and others.<sup>57</sup>

179. On information and belief, Arteris and its predecessors monitored U.S. published

<sup>&</sup>lt;sup>57</sup> <u>https://patents.google.com/patent/US8072893B2/en?oq=8%2c072%2c893</u> (last visited December 19, 2022).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 64 of 155

patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

180. On information and belief, Arteris and its predecessors were aware of and considered the '2893 patent, and its actual or potential applicability to their own current products and product roadmaps, including the products described herein.

181. On information and belief, Arteris has expertise in the subject matter of the '2893 patent and possesses sufficient technical competence to understand the scope of such patent.

182. On information and belief, Arteris additionally had knowledge of one or more of the Asserted Patents, including the '2893 patent, by virtue of the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology, including the subject matter of the Asserted Patents, as discussed above in paragraphs 33–44.

183. On information and belief, by virtue of Philips' and the '2893 patent's fame in the semiconductor industry, the patent's inclusion in the Philips Semiconductor portfolio, and the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology and the subject matter of the Asserted Patents, Arteris had actual knowledge of the '9893 patent around the time it issued or its U.S. application published, and in no event later than the date of this Complaint. By virtue of the Arteris acquisition, the hiring by Qualcomm of 43 Arteris employees, and the diligence surrounding this acquisition and hiring, as explained above in paragraphs 23-32, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents is imputed to Qualcomm.

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 65 of 155

184. On information and belief, Qualcomm monitored U.S. published patent applications and patents obtained by Philips in the semiconductor space in around the years 2006-2012.

185. On information and belief, Qualcomm was aware of and considered the '2893 patent, and its actual or potential applicability to its own current products and product roadmaps, including the products described herein.

186. On information and belief, Qualcomm has expertise in the subject matter of the '2893 patent and possesses sufficient technical competence to understand the scope of such patent.

187. As explained above in paragraphs 23-32, Qualcomm wholesale acquired a substantial part of Arteris's NoC business, engineering team, and technology for nearly onequarter of a billion dollars. As explained above in paragraphs 31-32, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included thorough analysis and assessment of potential patent infringement by Arteris and the Arteris Network on Chip ("NoC") technology to be acquired by Qualcomm. On information and belief, such diligence included interviews with the 43 Arteris engineers that Qualcomm hired as part of the acquisition, including key employees such as Arteris' Chief Technical Officer, Philippe Martin, to learn the full scope of such employees knowledge of competing NoC technologies and associated intellectual property-such as Philips' NoC technology and the Asserted Patents, including the '2893 patent-and any partnerships that Arteris might have explored with competitors such as Philips and the information that Arteris learned from Philips. As also noted above in paragraph 32, on information and belief, the aforementioned diligence

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 66 of 155

revealed to Qualcomm no later than October 2013 the multiple pre-2010 meetings, disclosure of Philips NoC technical information to Arteris, and potential collaboration between Arteris and Philips discussed above in paragraphs 33-44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, including the '2893 patent, as discussed above in paragraphs 33–44. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris had knowledge that Arteris, Arteris' customers, and/or Arteris' end users infringed the Asserted Patents, including the '2893 patent, or was willfully blind to such infringement, as discussed above in paragraphs 33–44. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, Mr. Philippe Martin, and other sources, will further confirm the details of Qualcomm's diligence, and the information it learned as part of that diligence, as well as information that Qualcomm learned from the ongoing employment of 43 Arteris engineers, including Arteris' Chief Technical Offer, Mr. Philippe Martin, about Arteris' knowledge that it, its customers, and/or its end users infringed the Asserted Patents, including the '2893 patent, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1).

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 67 of 155

188. On information and belief, by virtue of Philips' and the '2893 patent's fame in the semiconductor industry, and the patent's inclusion in the Philips Semiconductor portfolio, Qualcomm had actual knowledge of the '2893 patent around the time it issued or its U.S. application published, and in no event later than the date of this Complaint.

189. As explained above in paragraphs 45 through 51, the allegations of which are incorporated herein by reference, Qualcomm had actual knowledge of the Asserted Patents, including the '2893 Patent, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as early as late 2013 or early 2014 through the communications between Qualcomm and Governing Dynamics regarding the Asserted Patents and through the evaluations of the Asserted Patents performed by Qualcomm.

# **BACKGROUND OF DEFENDANTS' INFRINGING CONDUCT**

190. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to189 above.

191. SoCs are widely used in consumer electronics or computing devices, including smartphones, laptops, tablets, and embedded systems such as vehicle infotainment devices and advanced driver assistance systems. SoCs are complex integrated circuits that may incorporate multiple processors, memory units, and interfaces onto a single chip.

192. As SoCs have developed over time, more processing cores and other IP blocks were incorporated into SoCs, resulting in increased intermodular connections and a greater need for intra-SoC communication efficiency. Thus, intra-SoC communication designs have moved from prior interconnect technologies (e.g., bus or point-to-point designs) to network interconnects, which provide advantages compared to other forms of intra-SoC communication, such as fewer

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 68 of 155

wires, lower routing congestion, and decreased SoC die area, all leading to: smaller devices; increased IP block density, which results in more powerful devices; increased power efficiency, which enables better battery life; decreased thermal load, which leads to longer system life; and improved system performance. Therefore, interconnect efficiency—driven by the pioneering innovations claimed in the Asserted Patents—is now a dominant factor in determining overall SoC system performance, size, and cost.

193. As discussed above, the Asserted Patents relate to fundamental innovations in SoCs, including how the multitude of processors, memories, and other functional units residing on an SoC are interconnected and communicate with each other.

194. Qualcomm is a leading semiconductor company that provides SoCs, and Arteris is a provider of interconnect technology for SoCs.<sup>58</sup> Qualcomm provides Snapdragon SoCs, and on information and belief, Snapdragon SoCs include Arteris interconnect technology and/or a derivative thereof.<sup>59</sup> Thus, on information and belief, Qualcomm makes, uses, sells, offers for sale, and/or imports, or has otherwise made, used, sold, offered for sale, and/or imported, SoCs including Arteris interconnect technology and/or a derivative thereof.

195. As set forth in the charts appended hereto, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference, the Snapdragon SoCs, including their incorporation of Arteris interconnect technology and/or a derivative thereof,

<sup>&</sup>lt;sup>58</sup> See <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022).

<sup>&</sup>lt;sup>59</sup> <u>https://web.archive.org/web/20210514110614/https:/www.arteris.com/customers</u> (last visited December 19, 2022) (identifying Qualcomm as an Arteris customer and stating that "Arteris-developed NoC technology is the backbone of Snapdragon application processors & LTE modems, Atheros wireless connectivity SoCs, and CSR IoT products"); <u>https://www.eetimes.com/qualcomm-buys-arteris-tech-team</u> (last visited December 19, 2022) ("Qualcomm has been a customer of Arteris for about three years. It uses its FlexNoc 'in most of its chips,' [Arteris President] Janac said."); *see also* <u>https://news.thomasnet.com/fullstory/arteris-flexnoc-network-on-chip-technology-designed-into-majority-of-mobile-socs-20009449</u> (last visited December 19, 2022) (Arteris FlexNoC was incorporated into over 60% of SoCs deployed in smartphones and tablets).

infringe each of the Asserted Patents.

196. On information and belief, Qualcomm's products that infringe the Asserted Patents

(collectively, "Qualcomm Accused Products") include the following:<sup>60</sup>

Qualcomm Accused Products
Snapdragon processors
• Qualcomm integrated circuits containing Arteris
interconnect technology and/or a derivative thereof
• Phones, tablets, computers, laptops and Chromebooks
containing Snapdragon processors or other Qualcomm
integrated circuits containing Arteris interconnect
technology and/or a derivative thereof
• Vehicles and components thereof containing
Snapdragon processors or other Qualcomm integrated
circuits containing Arteris interconnect technology
and/or a derivative thereof, including, for example, the
Snapdragon Automotive Platform, Snapdragon Ride
Platform, Snapdragon Cockpit Platform, Snapdragon
Car-to-Cloud Platform Snapdragon Auto Connectivity
Platform and Snapdragon Digital Chassis
• Virtual Reality, Augmented Reality and wearable
products containing Snapdragon processors or other
Qualcomm integrated circuits containing Arteris
interconnect technology and/or a derivative thereof,
including, for example, the Snapdragon XR and
Snapdragon Wear
<ul> <li>IoT, Audio, Wireless Network and Smart Home</li> </ul>
products containing Snapdragon processors or other
Qualcomm integrated circuits containing Arteris
interconnect technology and/or a derivative thereof,
including, for example, Modem SoCs, Atheros SoCs and
CSR IoT products <sup>61</sup>

197. The Qualcomm Accused Products additionally include the "Accused Qualcomm

<sup>&</sup>lt;sup>60</sup> <u>https://web.archive.org/web/20210514110614/https://www.arteris.com/customers</u> (last visited December 19, 2022) (identifying Qualcomm as an Arteris customer and stating that "Arteris-developed NoC technology is the backbone of Snapdragon application processors & LTE modems, Atheros wireless connectivity SoCs, and CSR IoT products").

<sup>&</sup>lt;sup>61</sup> <u>https://web.archive.org/web/20210514110614/https:/www.arteris.com/customers</u> (last visited December 19, 2022) (identifying Qualcomm as an Arteris customer and stating that "Arteris-developed NoC technology is the backbone of Snapdragon ... modems, Atheros wireless connectivity SoCs, and CSR IoT products").

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 70 of 155

Instrumentalities" listed in Appendix A1 to NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto. The above-listed Qualcomm Accused Products are non-limiting. Additional products of Qualcomm may infringe the Asserted Patents, and the above-listed Qualcomm Accused Products may infringe additional patents.

198. Qualcomm has infringed and continues to infringe the Asserted Patents by making, using, selling, offering to sell, and/or importing, without license or authority, the Qualcomm Accused Products as alleged herein, which embody or use the inventions claimed in the Asserted Patents literally or under the doctrine of equivalents. On information and belief, Qualcomm does one or more of the following with the Qualcomm Accused Products: (a) manufacture and/or assemble (directly or through third parties) Accused Products that have been used, offered for sale, sold, and purchased in the United States; (b) use Accused Products in the United States (including during development and testing, and other use by Qualcomm employees); (c) import Accused Products for sale (directly or through third party distributors) in, and from within, the United States, to customers both within and outside the United States.

199. Comparison of claims of the Asserted Patents to an exemplary product of the Qualcomm Accused Products are attached as Exhibit 8 ('818 patent), Exhibit 9 ('449 patent), Exhibit 10 ('052 patent), Exhibit 11 ('9893 patent), and Exhibit 12 ('2893 patent), as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

200. With knowledge of the Asserted Patents, infringement thereof, or willful blindness thereto, as alleged herein, Qualcomm has induced infringement and continues to induce

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 71 of 155

infringement of the Asserted Patents by actively and knowingly inducing others to make, use, sell, offer to sell, and/or import, without license or authority, the Qualcomm Accused Products as alleged herein, which embody the inventions in the system and apparatus claims in the Asserted Patents literally or under the doctrine of equivalents and which inherently and automatically perform the claimed methods in the asserted method claims in the Asserted Patents literally or under the doctrine of equivalents during normal and intended use of the Qualcomm Accused Products. On information and belief, the Qualcomm Defendants induce others to make, use, offer to sell, sell and/or import the Qualcomm Accused Products with knowledge of the Asserted Patents and while knowing that the Qualcomm Accused Products embody the inventions in the system and apparatus claims in the Asserted Patents literally or under the doctrine of equivalents and knowing that the Qualcomm Accused Products inherently and automatically perform the claimed methods in the asserted method claims in the Asserted Patents literally or under the doctrine of equivalents during normal and intended use of the Qualcomm Accused Products. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. See, e.g., https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz, including files within the directory linux-6.0.1/drivers/interconnect. Additionally, on information and belief, the Qualcomm Defendants conduct these inducing activities within the United States, rendering Accused Products made, used, sold, offered for sale, or delivered both inside and outside the United States infringing.

201. The Qualcomm Accused Products are intended for integration into devices known to be sold widely in the United States. The Qualcomm Defendants make Accused Products which infringe when they are made, used, imported into, sold, or offered for sale in the United States. The Qualcomm Defendants indirectly infringe by inducing customers, downstream parties, end

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 72 of 155

users, and others to make, use, sell, offer for sale, or import devices that incorporate Accused Products. For example, the Qualcomm Defendants' customers, OEMs, importers, resellers and others who purchase or otherwise obtain Accused Products manufactured at the Defendants' overseas facilities and/or supplied by partner foundries, infringe when they make, use, sell, offer for sale, or import Accused Products embodying inventions that infringe the Asserted Patents, and when they make, use, sell, offer for sale, or import devices integrating Accused Products, in the United States. Additionally, on information and belief, the Qualcomm Defendants conduct these inducing activities within the United States, rendering Accused Products made, used, sold, offered for sale, or delivered both inside and outside the United States infringing.

202. On information and belief, Accused Products are manufactured for use in thirdparty devices that have been imported, sold, and offered for sale in the United States. On information and belief, the Accused Products are designed for use in these third-party devices, and therefore the Qualcomm Defendants have the specific knowledge and intent that their infringing Accused Products are destined for use in devices sold, offered for sale, and/or imported into the United States. On information and belief, the Qualcomm Defendants have taken affirmative steps to encourage or assist the third parties' importation of Accused Products into the United States with knowledge and specific intent to cause acts of direct infringement performed by such third parties. Additionally, on information and belief, the Qualcomm Defendants conduct these affirmative steps within the United States, rendering Accused Products made, used, sold, offered for sale, or delivered both inside and outside the United States infringing.

203. On information and belief, the Qualcomm Defendants work closely with their customers in the processes of selecting integrated circuits appropriate for their customers' specific applications and developing new devices. On information and belief, the Qualcomm Defendants

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 73 of 155

are aware that their infringing Accused Products, which are integrated circuits, are integral components of the devices incorporating them, that the infringing integrated circuits are built into the devices and cannot be removed or disabled by a purchaser or end user of the devices containing the infringing integrated circuits, such that the Qualcomm Defendants' customers will infringe the Asserted Patents by incorporating such infringing integrated circuits in other devices, and that subsequent importation, sale, and use of such devices in the United States is a direct infringement of the Asserted Patents. Therefore, the Qualcomm Defendants are aware that their customers will infringe one or more claims of the Asserted Patents by importing, selling, offering for sale, and/or using the Accused Products supplied by the Qualcomm Defendants. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. *See, e.g.*, https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz, including files within the directory linux-6.0.1/drivers/interconnect. Additionally, on information and belief, the Qualcomm Defendants conduct these inducing activities within the United States, rendering Accused Products made, used, sold, offered for sale, or delivered both inside and outside the United States infringing.

204. The Qualcomm Defendants directly benefit from and actively and knowingly encourage customers', resellers', and users' importation of Accused Products into the United States and sale and use within the United States. The Qualcomm Defendants actively encourage customers, resellers, OEMs, and users to import, use, and sell in the United States the Accused Products that the Qualcomm Defendants manufacture and supply, including through advertising, marketing, and sales activities directed at United States sales. On information and belief, the Qualcomm Defendants are aware of the size and importance of the United States market for customers of their Accused Products, and also distribute or supply their Accused Products intended for importation, use, offer for sale, and sale in the United States. On information and belief, the

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 74 of 155

Qualcomm Defendants compete in the integrated circuit market for business directed to the United States. The Qualcomm Defendants routinely market their infringing integrated circuits to third parties for inclusion in devices that are sold to customers in the United States. For example, the Qualcomm Defendants provide a website that allows customers, resellers, OEMs, and users to locate United States based "members" which are "verified companies who offer, sell, and recommend Qualcomm products."<sup>62</sup> The Qualcomm Defendants additionally provide a "device finder" service on their website that allows customers, resellers, OEMs, and users to locate and purchase "devices," such as smartwatches, AR devices, handheld gaming devices, laptops, MR devices, smartphones, smartwatches, VR devices, and wearable devices, that incorporate infringing Accused Products.<sup>63</sup> The Qualcomm Defendants additionally advertise benefits of the Accused Products, such as "Fueling devices with exceptional performance and power efficiency," which is enabled by infringement of the Asserted Patents as described above in paragraph 192-193.<sup>64</sup> The Qualcomm Defendants' marketing efforts show that they have specifically intended to and have induced direct infringement in the United States. Additionally, on information and belief, the Qualcomm Defendants conduct these marketing efforts within the United States, rendering Accused Products made, used, sold, offered for sale, or delivered both inside and outside the United States infringing.

205. The Qualcomm Defendants also provide OEMs, manufacturers, importers, resellers, customers, and end users instructions, data, tools, user guides, technical resources, and technical specifications on how to operate the Accused Products and how to incorporate the Accused Products into devices that are made, used, sold, offered for sale in and/or imported into

<sup>&</sup>lt;sup>62</sup> <u>https://www.qualcomm.com/support/qan/member-directory?facetRegions=United+States#member-listing</u> (last visited July 16, 2024).

<sup>&</sup>lt;sup>63</sup> <u>https://www.qualcomm.com/snapdragon/device-finder</u> (last visited July 16, 2024).

<sup>&</sup>lt;sup>64</sup> <u>https://www.qualcomm.com/products/mobile/snapdragon/smartphones</u> (last visited July 16, 2024).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 75 of 155

the United States. For example, the Qualcomm Defendants offer support services to United States based OEMs, manufacturers, importers, resellers, customers, and end users that encourage said end users to use the Qualcomm Accused Products in an infringing manner.<sup>65</sup> When OEMs, manufacturers, importers, resellers, customers, and end users follow such instructions, data, tools, user guides, technical resources, and technical specifications and operate the Accused Products or embed the Accused Products in devices and make, use, offer to sell, sell, or import those devices into the United States, they directly infringe claims of the Asserted Patents. The Qualcomm Defendants know that by providing such instructions, data, tools, user guides, technical resources, and technical specifications, OEMs, manufacturers, importers, resellers, customers, and end users follow them, and therefore directly infringe one or more claims of the Asserted Patents. The Defendants thus know that their actions actively induce infringement. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. See, e.g., https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz, including files within the directory linux-6.0.1/drivers/interconnect. Additionally, on information and belief, the Qualcomm Defendants conduct these support activities within the United States, rendering Accused Products made, used, sold, offered for sale, or delivered both inside and outside the United States infringing.

206. The Qualcomm Defendants have engaged and will continue to engage in additional activities to specifically target the United States market for the Accused Products and actively induce manufacturers, importers, resellers, customers, and end users to directly infringe the Asserted Patents in the United States. On information and belief, the Qualcomm Defendants have showcased their infringing integrated circuit products and technologies at various industry events, such as CES, AWE USA, Microsoft Build, Embedded Vision Summit, Snapdragon Summit, and

<sup>&</sup>lt;sup>65</sup> <u>https://www.qualcomm.com/support</u> (last visited July 16, 2024).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 76 of 155

others, and through written materials distributed in the United States, and through the Qualcomm websites in an effort to encourage customers to include the infringing technology in their devices.<sup>66</sup> On information and belief, these events are attended by direct infringers that make, use, offer to sell, sell, or import in the United States devices that incorporate the Qualcomm Defendants' Accused Products, as well as companies that use integrated circuits such as those made by the Qualcomm Defendants. The Qualcomm Defendants' website also enables customers to locate United States-based distributors of Qualcomm Defendants' Accused Products.<sup>67</sup> Additionally, on information and belief, the Qualcomm Defendants conduct these marketing efforts within the United States, rendering Accused Products made, used, sold, offered for sale, or delivered both inside and outside the United States infringing.

207. The Qualcomm Defendants derive significant revenue by selling the Accused Products to third parties who directly infringe the Asserted Patents in the United States. The Qualcomm Defendants' extensive sales and marketing efforts, sales volume, and partnerships all evidence their intent to induce companies to infringe the Asserted Patents by making, using, offering to sell, selling, or importing devices that incorporate the Accused Products in the United States. The Qualcomm Defendants have had specific intent to induce infringement or have been willfully blind to the direct infringement they are inducing.

208. As explained above in paragraphs 56, 84, 114, 142, and 176, the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, and Qualcomm had

<sup>&</sup>lt;sup>66</sup> <u>https://www.qualcomm.com/company/events/ces</u> (last visited July 16, 2024);

https://www.qualcomm.com/company/events (last visited July 16, 2024)

<sup>&</sup>lt;sup>67</sup> <u>https://www.qualcomm.com/support/qan/member-directory?facetRegions=United+States#member-listing</u> (last visited July 16, 2024); <u>https://www.qualcomm.com/snapdragon/device-finder</u> (last visited July 16, 2024).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 77 of 155

knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, since at least the December 19, 2022, date of the original Complaint (Dkt. 1).

As further explained in paragraphs 23-51, 57-79, 85-109, 115-137, 143-171, 177-209. 189, and 200-208, the allegations of which are incorporated herein by reference, on information and belief Qualcomm had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, prior to the December 19, 2022, date of the original Complaint (Dkt. 1). As explained in these paragraphs, on information and belief Qualcomm's pre-suit knowledge for each patent and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, results from a combination of factors, including Philips' and the Asserted Patents' fame in the semiconductor industry, the Asserted Patents' inclusion in the Philips Semiconductor portfolio, Qualcomm's desire to obtain valid and enforceable patents, Qualcomm's knowledge of the Asserted Patents via citation during prosecution of patents and patent applications either originally assigned to Qualcomm or purchased by Qualcomm from Arteris, Qualcomm's substantial technical and legal diligence in connection with its wholesale acquisition of a substantial part of Arteris's NoC business, engineering team, and technology by Qualcomm for nearly one-quarter of a billion dollars, through the communications between Qualcomm and Governing Dynamics regarding the Asserted Patents, and through the evaluations of the Asserted Patents performed by Qualcomm.

210. Indeed, as explained above in paragraphs 30-32, the allegations of which are

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 78 of 155

incorporated herein by reference, on information and belief, given the substantial price of the Arteris acquisition, the significant importance of the acquired Arteris technology as the "backbone" of Qualcomm's products, and the fiduciary duty that Qualcomm owed its shareholders, Qualcomm conducted substantial technical and legal diligence, which included a thorough analysis of Arteris' intellectual property, including the prosecution histories of patent applications and patents to be assigned from Arteris to Qualcomm, a thorough analysis and assessment of potential patent infringement by Arteris and the Arteris Network on Chip ("NoC") technology to be acquired by Qualcomm. On information and belief, such diligence included interviews with patent prosecution counsel, the named inventors of such patents and patent applications, the 43 Arteris engineers that Qualcomm hired as part of the acquisition, including key employees such as Arteris' Chief Technical Officer, Philippe Martin, to learn the full scope of such employees' knowledge of competing NoC technologies and associated intellectual property—such as Philips' NoC technology and the Asserted Patents—and any partnerships that Arteris might have explored with competitors such as Philips and the information that Arteris learned from Philips. As also noted above in paragraph 32, the allegations of which are incorporated herein by reference, on information and belief, the aforementioned diligence revealed to Qualcomm no later than October 2013 the multiple pre-2010 meetings, disclosure of Philips NoC technical information to Arteris, and potential collaboration between Arteris and Philips discussed above in paragraphs 33–44, the allegations of which are incorporated herein by reference. On information and belief, this diligence also revealed to Qualcomm no later than October 2013 that Arteris was aware of, and interested in, the technology described in one or more Asserted Patents, as discussed above in paragraphs 33-44, the allegations of which are incorporated herein by reference. On information and belief, this diligence also revealed to

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 79 of 155

Qualcomm no later than October 2013 that Arteris had knowledge that Arteris, Arteris' customers, and/or Arteris' end users infringed the Asserted Patents, or was willfully blind to such infringement, as discussed above in paragraphs 33-44, the allegations of which are incorporated herein by reference. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, Mr. Philippe Martin, and other sources, will further confirm the details of Qualcomm's diligence, and the information it learned as part of that diligence, as well as information that Qualcomm learned from the ongoing employment of 43 Arteris engineers, including Arteris' Chief Technical Offer, Mr. Philippe Martin, about Arteris' knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

211. As also noted above in paragraphs 44-51, the allegations of which are incorporated herein by reference, Qualcomm had actual knowledge of the Asserted Patents, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 80 of 155

was willfully blind to such infringement, at least as early as late 2013 or early 2014 through the communications between Qualcomm and Governing Dynamics regarding the Asserted Patents, and through the evaluations of the Asserted Patents performed by Qualcomm.

Moreover, as shown in the charts appended as Exhibit 8 ('818 patent), Exhibit 9 212. ('449 patent), Exhibit 10 ('052 patent), Exhibit 11 ('9893 patent), Exhibit 12 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, and the materials cited therein, and as discussed in paragraphs 200-211, the allegations of which are incorporated herein by reference, the Qualcomm Accused Products necessarily infringe the Asserted Patents as made, used, offered for sale, sold, and imported and during their normal and intended use and, therefore, because Qualcomm markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products to be made, used, sold, offered for sale and/or imported for the normal and intended use and operation thereof and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import the Qualcomm Accused Products with knowledge of the Asserted Patents, Qualcomm possesses specific intent to infringe and induce infringement. For example, Qualcomm, or an entity under Qualcomm's direction or control, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof on its website.<sup>68</sup> Qualcomm, or one or more

<sup>&</sup>lt;sup>68</sup> See, e.g., <u>https://www.qualcomm.com/snapdragon</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/technology/processors/mobile-processors</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/automotive</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/smartphones</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/mobile-computing</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022);

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 81 of 155

related entities, further publishes and distributes product briefs, data sheets, manuals, guides, test reports, specifications, videos, and other authorized resources for the Qualcomm Accused Products and the normal and intended use and operation thereof.<sup>69</sup> Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's specific intent to induce infringement. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. See. e.g., https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz, including files within the directory linux-6.0.1/drivers/interconnect.

213. Qualcomm has contributorily infringed and continues to contributorily infringe the Asserted Patents by selling or offering to sell Qualcomm Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the Asserted Patents and not a staple article or commodity of commerce suitable for substantial non-infringing use.

214. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, on information and belief Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery

<sup>&</sup>lt;sup>69</sup> See, e.g., <u>https://www.qualcomm.com/search?query=%22snapdragon%22&activeCategory=Documents</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/Snapdragon-8-plus-Gen-1-Product-Brief.pdf</u> (last visited December 19, 2022).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 82 of 155

in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

215. On information and belief, and as alleged above, Qualcomm has known of the existence of the Asserted Patents and their applicability to Qualcomm's Accused Products, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and its acts of infringement have been willful and/or willfully blind and in disregard for the Asserted Patents, without any reasonable basis for believing that it had a right to engage in the infringing conduct, at least as of the dates of knowledge of the Asserted Patents alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

216. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

217. On information and belief, Arteris infringes the Asserted Patents based on its interconnect technology for SoCs, including its (1) interconnect semiconductor intellectual property ("IP") and (2) IP deployment technology (collectively, "Arteris interconnect technology"

82

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 83 of 155

or "Arteris Accused Products").<sup>70</sup> On information and belief, Arteris Accused Products include the following:

Arteris Accused Products
<ul> <li>Arteris FlexNoC products</li> </ul>
Arteris Ncore products
• Arteris interconnect technology and derivatives
thereof

218. The Arteris Accused Products additionally include the "Accused Arteris Instrumentalities" listed in Appendix A<sub>2</sub> to NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto. The above-listed Arteris Accused Products are non-limiting. Arteris's infringement of the Asserted Patents may be based on additional or alternative products of Arteris, and the above-listed Arteris Accused Products may infringe additional patents.

219. Comparison of claims of the Asserted Patents to an exemplary product of the Arteris Accused Products are attached as Exhibit 14 ('818 patent), Exhibit 15 ('449 patent), Exhibit 16 ('052 patent), Exhibit 17 ('9893 patent), and Exhibit 18 ('2893 patent), as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

220. On information and belief, Arteris indirectly infringes the Asserted Patents by inducing infringement or contributing to infringement by Qualcomm and/or other entities that make, use, sell, offer to sell, and/or import SoCs that include Arteris interconnect technology.

221. Arteris has induced infringement and continues to induce infringement of the Asserted Patents by actively and knowingly inducing others to make, use, sell, offer to sell, and/or

<sup>&</sup>lt;sup>70</sup> <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022); <u>https://www.arteris.com/products</u> (last visited December 19, 2022).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 84 of 155

import, without license or authority, SoCs incorporating Arteris interconnect technology, including the Qualcomm Accused Products as alleged herein, which embody or use the inventions claimed in the Asserted Patents literally or under the doctrine of equivalents.

222. As explained above in paragraphs 56, 84, 114, 142, and 176, the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, since at least the December 19, 2022, date of the original Complaint (Dkt. 1).

223. As further explained in paragraphs 25-26, 33-44, 57-68, 85-97, 115-131, 143-156, and 177-183, the allegations of which are incorporated herein by reference, Arteris had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, prior to the December 19, 2022, date of the original Complaint (Dkt. 1). As explained in these paragraphs, Arteris' pre-suit knowledge for each patent and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement results from a combination of factors, including Philips' and the Asserted Patents' fame in the semiconductor industry, the Asserted Patents' inclusion in the Philips Semiconductor portfolio, Arteris' desire to obtain valid and enforceable patents, the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 85 of 155

Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology and the subject matter of the Asserted Patents as described in paragraphs 25-26, 33-44, and Arteris' knowledge of the Asserted Patents via citation during prosecution of patents and patent applications. As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

224. Indeed, as explained above in paragraphs 33-44, the allegations of which are incorporated herein by reference, on information and belief, Arteris had knowledge of the Asserted Patents, and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, by virtue of the numerous pre-2010 meetings between Philips and Arteris, as well as the multiple presentations and publications by Arteris' leadership, including its CEO and its Chief Technical Officer, evidencing in-depth knowledge of Philips' NoC Technology, including the subject matter of the Asserted Patents. As explained in these paragraphs, based on these meetings, presentations, and publications, Arteris had knowledge that it, its customers, and/or its end users infringed the Asserted Patents, or was willfully blind to such infringement, prior to the December 2022 filing of the original Complaint in this Case (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 86 of 155

this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

225. Moreover, as shown in the charts appended as Exhibit 14 ('818 patent), Exhibit 15 ('449 patent), Exhibit 16 ('052 patent), Exhibit 17 ('9893 patent), Exhibit 18 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, Arteris markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import SoCs incorporating Arteris interconnect technology, including the Qualcomm Accused Products. For example, Arteris, or an entity under Arteris's direction or control, advertises, offers for sale, and/or otherwise products on its website.<sup>71</sup> Arteris, or one or more related entities, further publishes and distributes datasheets, presentations, technical

<sup>&</sup>lt;sup>71</sup> See, e.g., <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022) (listing "[k]ey benefits of Arteris IP ... interconnect solutions" and stating, for example, that the Arteris Accused Products "accelerate [SoC] semiconductor development and integration for a wide range of applications" and that "[c]ustomer results obtained by using Arteris IP products include lower power, higher performance, more efficient design reuse and faster SoC development, leading to lower development and production costs"); <u>https://www.arteris.com/products</u> (last visited December 19, 2022) (stating, for example, that Arteris's "interconnect IP is the communications backbone of your SoC, allowing you to make more complex chips in less time"); <u>https://www.arteris.com/semiconductor-ip-products</u> (last visited December 19, 2022) (stating, for example, that Arteris interconnect technology is "[t]he gold standard for SoC ... interconnects").

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 87 of 155

papers, and videos for the Arteris Accused Products.<sup>72</sup> Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' specific intent to induce infringement.

226. Arteris has contributorily infringed and continues to contributorily infringe the Asserted Patents by selling or offering to sell Arteris Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the Asserted Patents and not a staple article or commodity of commerce suitable for substantial non-infringing use.

227. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-

<sup>&</sup>lt;sup>72</sup> https://www.arteris.com/resources (last visited December 19, 2022); *see, e.g.*, <u>https://www.arteris.com/hs-fs/hub/48858/file-14363521-pdf/docs/springer-appdrivennocarchitecture8.5x11.pdf</u> (last visited December 19, 2022) (peer-reviewed technical journal article regarding Arteris interconnect technology, providing an Arteris product tutorial and touting that "the ... methodology will not lead you astray, the flexibility of the Arteris library will fit your needs, and the associated tool framework will permit a clear description and validation of your NoC").

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 88 of 155

Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris's knowledge of, and knowing infringement of, the Asserted Patents.

228. On information and belief, and as alleged above, Arteris has known of the existence of the Asserted Patents and their applicability to Arteris' Accused Products, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and its acts of infringement have been willful and in disregard for the Asserted Patents, without any reasonable basis for believing that it had a right to engage in the infringing conduct, at least as of the dates of knowledge of the Asserted Patents alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm.

229. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or

88

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 89 of 155

their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

#### <u>COUNT I – INFRINGEMENT OF U.S. PATENT NO. 7,366,818</u>

230. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 229 above.

231. On information and belief, Qualcomm has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Qualcomm Accused Products, that infringe, either literally or under the doctrine of equivalents, one or more claims of the '818 patent in violation of 35 U.S.C. § 271(a), including claim 1. A comparison of claim 1 of the '818 patent to an exemplary product of the Qualcomm Accused Products is attached as Exhibit 8, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by

reference.

232. On information and belief, with knowledge of the '818 patent, Qualcomm has actively induced and continues to induce the direct infringement of one or more claims of the '818 patent, including claim 1, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Qualcomm Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '818 patent, including claim 1, with the intent to encourage those customers and/or end users to infringe the '818 patent.

233. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

234. By way of example, on information and belief, Qualcomm actively induces infringement of the '818 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Qualcomm's products, including at least the Qualcomm Accused Products, to make, use, sell, offer to sell, and/or import Qualcomm's products, including at least the Qualcomm Accused Products, to make, use, sell, offer

90

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 91 of 155

in a manner that infringes at least one claim of the '818 patent, including claim 1. For example, as described above, Qualcomm actively markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products by publishing and distributing data sheets, manuals, and guides for the Qualcomm Accused Products. Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the '818 patent.

235. As shown in the charts appended as Exhibit 8 ('818 patent), Exhibit 9 ('449 patent), Exhibit 10 ('052 patent), Exhibit 11 ('9893 patent), Exhibit 12 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, and the materials cited therein, and as discussed above in paragraphs 200-212, the Qualcomm Accused Products necessarily infringe the Asserted Patents as made, used, offered for sale, sold, and imported and during their normal and intended use and, therefore, because Qualcomm markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import the Qualcomm Accused Products with knowledge of the Asserted Patents, Qualcomm possesses specific intent to infringe. For example, Qualcomm, or an entity under Qualcomm's direction or control, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof on its website.<sup>73</sup> Qualcomm, or one or more related entities, further publishes and distributes

<sup>&</sup>lt;sup>73</sup> See, e.g., <u>https://www.qualcomm.com/snapdragon</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/technology/processors/mobile-processors (</u>last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/automotive</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/smartphones</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/mobile-computing</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/mobile-computing</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022);

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 92 of 155

product briefs, data sheets, manuals, guides, test reports, specifications, videos, and other authorized resources for the Qualcomm Accused Products and the normal and intended use and operation thereof.<sup>74</sup> Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's specific intent to induce infringement. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. *See, e.g.*, <u>https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz</u>, including files within the directory linux-6.0.1/drivers/interconnect.

236. On information and belief, with knowledge of the '818 patent, Qualcomm also contributed to, and continues to contribute to, the infringement of one or more claims of the '818 patent, including claim 1, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Qualcomm Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '818 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Qualcomm Accused Products, which are especially made or especially adapted for use in infringement of the '818 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, Qualcomm's informational and promotional materials described above, which describe the normal use and intended purpose of the Qualcomm Accused

https://www.qualcomm.com/products/application/audio (last visited December 19, 2022); https://www.qualcomm.com/products/application/xr-vr-ar (last visited December 19, 2022);

<sup>&</sup>lt;sup>74</sup> See, e.g., <u>https://www.qualcomm.com/search?query=%22snapdragon%22&activeCategory=Documents</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/Snapdragon-8-plus-Gen-1-Product-Brief.pdf</u> (last visited December 19, 2022).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 93 of 155

Products and demonstrate that the Qualcomm Accused Products are especially made or especially adapted for a use that infringes the '818 patent.

237. As explained above paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

238. On information and belief, as a result of Qualcomm's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, Qualcomm's products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '818 patent, including claim 1. On information and belief, Qualcomm had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Qualcomm's products, including the Qualcomm Accused Products, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

239. On information and belief, with knowledge of the '818 patent, Qualcomm has willfully, deliberately, and intentionally infringed the '818 patent, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the

93

### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 94 of 155

original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '818 patent. On information and belief, Qualcomm had actual knowledge of the '818 patent and infringement of the '818 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Qualcomm continued to directly and indirectly infringe the '818 patent as set forth above. On information and belief, Qualcomm knew or should have known that its conduct amounted to infringement of the '818 patent at least because Qualcomm was aware of the '818 patent and infringement of the '818 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). Qualcomm was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '818 patent's fame in the semiconductor industry, Qualcomm's expertise in the subject matter of the '818 patent, Qualcomm's technical competence to understand the scope of the '818 patent, and Qualcomm's intimate familiarity with its Accused Products. Additionally, Qualcomm was aware of the '818 patent, and infringement of the '818 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Qualcomm of such.

240. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm,

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 95 of 155

and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

241. On information and belief, Qualcomm will continue to infringe the '818 patent unless and until it is enjoined by this Court. Qualcomm, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Qualcomm's acts of infringement and, unless Qualcomm is enjoined from its infringement of the '818 patent, Plaintiff will continue to suffer irreparable harm.

242. Plaintiff is entitled to recover from Qualcomm damages at least in an amount adequate to compensate for its infringement of the '818 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

243. On information and belief, Arteris has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Arteris Accused Products, that indirectly infringe, either literally or under the doctrine of equivalents, one or more claims of the '818 patent in violation of 35 U.S.C. § 271, including claim 1. A comparison of claim 1 of the '818 patent to an exemplary product of the Arteris Accused Products is attached as Exhibit 14, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 96 of 155

244. On information and belief, with knowledge of the '818 patent, Arteris has actively induced and continues to induce the direct infringement of one or more claims of the '818 patent, including claim 1, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Arteris Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '818 patent, including claim 1, with the intent to encourage those customers and/or end users to infringe the '818 patent.

245. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 97 of 155

Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

246. By way of example, on information and belief, Arteris actively induces infringement of the '818 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Arteris products, including at least the Arteris Accused Products, to make, use, sell, offer to sell, and/or import SoCs incorporating such Arteris products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '818 patent, including claim 1. For example, as described above, Arteris actively markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products. Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the '818 patent.

247. As shown in the charts appended as Exhibit 14 ('818 patent), Exhibit 15 ('449 patent), Exhibit 16 ('052 patent), Exhibit 17 ('9893 patent), Exhibit 18 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, Arteris markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import SoCs incorporating Arteris interconnect technology, including the Qualcomm Accused Products. For example, Arteris, or an entity under Arteris's direction or control, advertises, offers for sale, and/or otherwise products on its website.<sup>75</sup> Arteris, or one

<sup>&</sup>lt;sup>75</sup> See, e.g., <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022) (listing "[k]ey benefits of Arteris IP ... interconnect solutions" and stating, for example, that the Arteris Accused Products "accelerate [SoC] semiconductor development and integration for a wide range of applications" and that "[c]ustomer results obtained

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 98 of 155

or more related entities, further publishes and distributes datasheets, presentations, technical papers, and videos for the Arteris Accused Products.<sup>76</sup> Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' specific intent to induce infringement.

248. On information and belief, with knowledge of the '818 patent, Arteris also contributed to, and continues to contribute to, the infringement of one or more claims of the '818 patent, including claim 1, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Arteris Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '818 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Arteris Accused Products, which are especially made or especially adapted for use in infringement of the '818 patent when used for their normal and intended purpose. This is also evidenced by, among other things, Arteris's informational and promotional materials described above, which describe the normal use and intended purpose of the Arteris Accused Products and demonstrate that the Arteris Accused Products are especially made or especially adapted for a use that infringes the '818 patent.

by using Arteris IP products include lower power, higher performance, more efficient design reuse and faster SoC development, leading to lower development and production costs"); <u>https://www.arteris.com/products</u> (last visited December 19, 2022) (stating, for example, that Arteris's "interconnect IP is the communications backbone of your SoC, allowing you to make more complex chips in less time"); <u>https://www.arteris.com/semiconductor-ip-products</u> (last visited December 19, 2022) (stating, for example, that Arteris interconnect technology is "[t]he gold standard for SoC ... interconnects").

<sup>&</sup>lt;sup>76</sup> https://www.arteris.com/resources (last visited December 19, 2022); *see, e.g.*, <u>https://www.arteris.com/hs-fs/hub/48858/file-14363521-pdf/docs/springer-appdrivennocarchitecture8.5x11.pdf</u> (last visited December 19, 2022) (peer-reviewed technical journal article regarding Arteris interconnect technology, providing an Arteris product tutorial and touting that "the ... methodology will not lead you astray, the flexibility of the Arteris library will fit your needs, and the associated tool framework will permit a clear description and validation of your NoC").

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 99 of 155

249. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

250. On information and belief, as a result of Arteris's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, SoCs incorporating such Arteris products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '818 patent, including claim 1. On information and belief, Arteris had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Arteris's products, including the Arteris Accused

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 100 of 155

Products, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

251. On information and belief, with knowledge of the '818 patent, Arteris has willfully, deliberately, and intentionally infringed the '818 patent, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '818 On information and belief, Arteris had actual knowledge of the '818 patent and patent. infringement of the '818 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Arteris continued to indirectly infringe the '818 patent as set forth above. On information and belief, Arteris knew or should have known that its conduct amounted to infringement of the '818 patent at least because Arteris was aware of the '818 patent and infringement of the '818 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '818 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Arteris was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '818 patent's fame in the semiconductor industry, Arteris's expertise in the subject matter of the '818 patent, Arteris's technical competence to understand the scope of the '818 patent, and Arteris's intimate familiarity with its Accused Products. Additionally, Arteris was aware of the '818 patent, and infringement of the '818 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 101 of 155

19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Arteris of such.

As explained above in paragraphs 220-225 (and the paragraphs cited therein), the 252. allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

253. On information and belief, Arteris will continue to infringe the '818 patent unless and until it is enjoined by this Court. Arteris, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Arteris's acts of infringement and, unless Arteris is enjoined from its infringement of the '818 patent, Plaintiff will continue to suffer irreparable harm.

101

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 102 of 155

254. Plaintiff is entitled to recover from Arteris damages at least in an amount adequate to compensate for its infringement of the '818 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

#### COUNT II – INFRINGEMENT OF U.S. PATENT NO. 7,373,449

255. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 254 above.

256. On information and belief, Qualcomm has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Qualcomm Accused Products, that infringe, either literally or under the doctrine of equivalents, one or more claims of the '449 patent in violation of 35 U.S.C. § 271(a), including claim 10. A comparison of claim 10 of the '449 patent to an exemplary product of the Qualcomm Accused Products is attached as Exhibit 9, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

257. On information and belief, with knowledge of the '449 patent, Qualcomm has actively induced and continues to induce the direct infringement of one or more claims of the '449 patent, including claim 10, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Qualcomm Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '449 patent, including claim 10, with the intent to encourage those customers and/or end users to infringe the '449 patent.

258. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 103 of 155

allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

259. By way of example, on information and belief, Qualcomm actively induces infringement of the '449 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Qualcomm's products, including at least the Qualcomm Accused Products, to make, use, sell, offer to sell, and/or import Qualcomm's products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '449 patent, including claim 10. For example, as described above, Qualcomm actively markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products by publishing and distributing data sheets, manuals, and guides for the Qualcomm Accused Products. Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the '449 patent.

260. As shown in the charts appended as Exhibit 8 ('818 patent), Exhibit 9 ('449 patent), Exhibit 10 ('052 patent), Exhibit 11 ('9893 patent), and Exhibit 12 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, and the materials cited therein, the allegations of which are incorporated herein by reference herein, and as discussed above in paragraphs 200-212, the Qualcomm Accused

# Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 104 of 155

Products necessarily infringe the Asserted Patents as made, offered for sale, sold, used and imported and during their normal and intended use and operation and, therefore, because Oualcomm markets, advertises, offers for sale, and/or otherwise promotes the Oualcomm Accused Products and the normal and intended use and operation thereof and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import the Qualcomm Accused Products with knowledge of the Asserted Patents, Qualcomm possesses specific intent to infringe. For example, Qualcomm, or an entity under Qualcomm's direction or control, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof on its website.<sup>77</sup> Qualcomm, or one or more related entities, further publishes and distributes product briefs, data sheets, manuals, guides, test reports, specifications, videos, and other authorized resources for the Qualcomm Accused Products and the normal and intended use and operation thereof.<sup>78</sup> Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's specific intent to induce infringement. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. See, e.g., https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-

<sup>77</sup> See, e.g., <u>https://www.qualcomm.com/snapdragon</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/technology/processors/mobile-processors</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/automotive</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/smartphones</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/mobile-computing</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/xr-vr-ar</u> (last visited December 19, 2022); <u><sup>78</sup> See, e.g., https://www.qualcomm.com/search?query=%22snapdragon%22&activeCategory=Documents (last visited December 19, 2022);</u>

visited December 19, 2022); <u>https://www.qualcomm.com/content/dam/qcomm-martech/dm-</u> assets/documents/Snapdragon-8-plus-Gen-1-Product-Brief.pdf (last visited December 19, 2022).

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 105 of 155

6.0.1.tar.gz, including files within the directory linux-6.0.1/drivers/interconnect.

261. On information and belief, with knowledge of the '449 patent, Qualcomm also contributed to, and continues to contribute to, the infringement of one or more claims of the '449 patent, including claim 10, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Qualcomm Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '449 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Qualcomm Accused Products, which are especially made or especially adapted for use in infringement of the '449 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, Qualcomm's informational and promotional materials described above, which describe the normal use and intended purpose of the Qualcomm Accused Products and demonstrate that the Qualcomm Accused Products are especially made or especially adapted for a use that infringes the '449 patent.

262. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 106 of 155

263. On information and belief, as a result of Qualcomm's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, Qualcomm's products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '449 patent, including claim 10. On information and belief, Qualcomm had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Qualcomm's products, including the Qualcomm Accused Products, at least as of the dates of knowledge of the '449 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

264. On information and belief, with knowledge of the '449 patent, Qualcomm has willfully, deliberately, and intentionally infringed the '449 patent, at least as of the dates of knowledge of the '449 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '449 patent. On information and belief, Qualcomm had actual knowledge of the '449 patent and infringement of the '449 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '449 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Qualcomm continued to directly and indirectly infringe the '449 patent as set forth above. On information and belief, Qualcomm was aware of the '449 patent and infringement of the '449 patent by Arteris, Qualcomm the infringement of the '449 patent by Arteris, Qualcomm that its conduct amounted to infringement of the '449 patent by Arteris, Qualcomm was aware of the '449 patent and infringement of the '449 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement of the '449 patent at least because Qualcomm was aware of the '449 patent and infringement of the '449 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '449 patent alleged above, and no

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 107 of 155

later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Qualcomm was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '449 patent's fame in the semiconductor industry, Qualcomm's expertise in the subject matter of the '449 patent, Qualcomm's technical competence to understand the scope of the '449 patent, and Qualcomm's intimate familiarity with its Accused Products. Additionally, Qualcomm was aware of the '449 patent, and infringement of the '449 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Qualcomm of such.

265. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

266. On information and belief, Qualcomm will continue to infringe the '449 patent unless and until it is enjoined by this Court. Qualcomm, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Qualcomm's acts of infringement and, unless Qualcomm is enjoined from its infringement of the

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 108 of 155

'449 patent, Plaintiff will continue to suffer irreparable harm.

267. Plaintiff is entitled to recover from Qualcomm damages at least in an amount adequate to compensate for its infringement of the '449 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

268. On information and belief, Arteris has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Arteris Accused Products, that indirectly infringe, either literally or under the doctrine of equivalents, one or more claims of the '449 patent in violation of 35 U.S.C. § 271, including claim 10. A comparison of claim 10 of the '449 patent to an exemplary product of the Arteris Accused Products is attached as Exhibit 15, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

269. On information and belief, with knowledge of the '449 patent, Arteris has actively induced and continues to induce the direct infringement of one or more claims of the '449 patent, including claim 10, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Arteris Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '449 patent, including claim 10, with the intent to encourage those customers and/or end users to infringe the '449 patent.

270. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 109 of 155

their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

271. By way of example, on information and belief, Arteris actively induces infringement of the '449 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Arteris products, including at least the Arteris Accused Products, to make, use, sell, offer to sell, and/or import SoCs incorporating such Arteris products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '449 patent, including claim 10. For example, as described above, Arteris actively markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products. Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the '449 patent.

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 110 of 155

As shown in the charts appended as Exhibit 14 ('818 patent), Exhibit 15 ('449 272. patent), Exhibit 16 ('052 patent), Exhibit 17 ('9893 patent), Exhibit 18 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, Arteris markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import SoCs incorporating Arteris interconnect technology, including the Qualcomm Accused Products. For example, Arteris, or an entity under Arteris's direction or control, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products on its website.<sup>79</sup> Arteris, or one or more related entities, further publishes and distributes datasheets, presentations, technical papers, and videos for the Arteris Accused Products.<sup>80</sup> Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' specific intent to induce infringement.

273. On information and belief, with knowledge of the '449 patent, Arteris also

<sup>&</sup>lt;sup>79</sup> See, e.g., <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022) (listing "[k]ey benefits of Arteris IP ... interconnect solutions" and stating, for example, that the Arteris Accused Products "accelerate [SoC] semiconductor development and integration for a wide range of applications" and that "[c]ustomer results obtained by using Arteris IP products include lower power, higher performance, more efficient design reuse and faster SoC development, leading to lower development and production costs"); <u>https://www.arteris.com/products</u> (last visited December 19, 2022) (stating, for example, that Arteris's "interconnect IP is the communications backbone of your SoC, allowing you to make more complex chips in less time"); <u>https://www.arteris.com/semiconductor-ip-products</u> (last visited December 19, 2022) (stating, for example, that Arteris interconnect technology is "[t]he gold standard for SoC ... interconnects").

<sup>&</sup>lt;sup>80</sup> <u>https://www.arteris.com/resources</u> (last visited December 19, 2022); *see, e.g.*, <u>https://www.arteris.com/hs-fs/hub/48858/file-14363521-pdf/docs/springer-appdrivennocarchitecture8.5x11.pdf</u> (last visited December 19, 2022) (peer-reviewed technical journal article regarding Arteris interconnect technology, providing an Arteris product tutorial and touting that "the ... methodology will not lead you astray, the flexibility of the Arteris library will fit your needs, and the associated tool framework will permit a clear description and validation of your NoC").

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 111 of 155

contributed to, and continues to contribute to, the infringement of one or more claims of the '449 patent, including claim 10, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Arteris Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '449 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Arteris Accused Products, which are especially made or especially adapted for use in infringement of the '449 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, Arteris's informational and promotional materials described above, which describe the normal use and intended purpose of the Arteris Accused Products and demonstrate that the Arteris Accused Products are especially made or especially adapted for a use that infringes the '449 patent.

274. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 112 of 155

Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

275. On information and belief, as a result of Arteris's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, SoCs incorporating such Arteris products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '449 patent, including claim 10. On information and belief, Arteris had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Arteris's products, including the Arteris Accused Products, at least as of the dates of knowledge of the '449 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

276. On information and belief, with knowledge of the '449 patent, Arteris has willfully, deliberately, and intentionally infringed the '449 patent, at least as of the dates of knowledge of the '449 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '449 patent. On information and belief, Arteris had actual knowledge of the '449 patent and infringement of the '449 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '449 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Arteris continued to indirectly

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 113 of 155

infringe the '449 patent as set forth above. On information and belief, Arteris knew or should have known that its conduct amounted to infringement of the '449 patent at least because Arteris was aware of the '449 patent and infringement of the '449 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '449 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Arteris was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '449 patent's fame in the semiconductor industry, Arteris's expertise in the subject matter of the '449 patent, Arteris's technical competence to understand the scope of the '449 patent, and Arteris's intimate familiarity with its Accused Products. Additionally, Arteris was aware of the '449 patent, and infringement of the '449 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Arteris of such.

277. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 114 of 155

customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

278. On information and belief, Arteris will continue to infringe the '449 patent unless and until it is enjoined by this Court. Arteris, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Arteris's acts of infringement and, unless Arteris is enjoined from its infringement of the '449 patent, Plaintiff will continue to suffer irreparable harm.

279. Plaintiff is entitled to recover from Arteris damages at least in an amount adequate to compensate for its infringement of the '449 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

## COUNT III – INFRINGEMENT OF U.S. PATENT NO. 7,594,052

280. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 279 above.

281. On information and belief, Qualcomm has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Qualcomm Accused Products, that infringe, either literally or under the doctrine of equivalents, one or more claims of the '052 patent in violation of 35 U.S.C. § 271(a), including claim 6. A comparison of claim 6 of the '052 patent to an exemplary product of the Qualcomm Accused Products is attached

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 115 of 155

as Exhibit 10, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

282. On information and belief, with knowledge of the '052 patent, Qualcomm has actively induced and continues to induce the direct infringement of one or more claims of the '052 patent, including claim 6, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Qualcomm Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '052 patent, including claim 6, with the intent to encourage those customers and/or end users to infringe the '052 patent.

283. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

284. By way of example, on information and belief, Qualcomm actively induces infringement of the '052 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 116 of 155

Qualcomm's products, including at least the Qualcomm Accused Products, to make, use, sell, offer to sell, and/or import Qualcomm's products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '052 patent, including claim 6. For example, as described above, Qualcomm actively markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products by publishing and distributing data sheets, manuals, and guides for the Qualcomm Accused Products. Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the '052 patent.

285. As shown in the charts appended as Exhibit 8 ('818 patent), Exhibit 9 ('449 patent), Exhibit 10 ('052 patent), Exhibit 11 ('9893 patent), Exhibit 12 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, and the materials cited therein, and as discussed in paragraphs 200-212, the Qualcomm Accused Products necessarily infringe the Asserted Patents as made, used, offered for sale, sold, and imported and during their normal and intended use and operation and, therefore, because Qualcomm markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import the Qualcomm Accused Products with knowledge of the Asserted Patents, Qualcomm possesses specific intent to infringe. For example, Qualcomm, or an entity under Qualcomm's direction or control, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products on its website and the normal and intended use and operation thereof.<sup>81</sup> Qualcomm, or one or more related entities, further publishes and distributes

<sup>&</sup>lt;sup>81</sup> See, e.g., <u>https://www.qualcomm.com/snapdragon</u> (last visited December 19, 2022);

### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 117 of 155

product briefs, data sheets, manuals, guides, test reports, specifications, videos, and other authorized resources for the Qualcomm Accused Products and the normal and intended use and operation thereof.<sup>82</sup> Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's specific intent to induce infringement. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. *See, e.g.*, <u>https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz</u>, including files within the directory linux-6.0.1/drivers/interconnect.

286. On information and belief, with knowledge of the '052 patent, Qualcomm also contributed to, and continues to contribute to, the infringement of one or more claims of the '052 patent, including claim 6, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Qualcomm Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '052 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Qualcomm Accused Products, which are especially made or especially adapted for use in infringement of the '052 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is

https://www.qualcomm.com/products/technology/processors/mobile-processors (last visited December 19, 2022);; https://www.qualcomm.com/products/application/automotive (last visited December 19, 2022); https://www.qualcomm.com/products/application/smartphones (last visited December 19, 2022); https://www.qualcomm.com/products/application/mobile-computing (last visited December 19, 2022); https://www.qualcomm.com/products/application/wearables (last visited December 19, 2022);

https://www.qualcomm.com/products/application/audio (last visited December 19, 2022); https://www.qualcomm.com/products/application/xr-vr-ar (last visited December 19, 2022);

 <sup>&</sup>lt;sup>82</sup> See, e.g., <u>https://www.qualcomm.com/search?query=%22snapdragon%22&activeCategory=Documents</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/content/dam/qcomm-martech/dm-</u>

assets/documents/Snapdragon-8-plus-Gen-1-Product-Brief.pdf (last visited December 19, 2022).

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 118 of 155

also evidenced by, among other things, Qualcomm's informational and promotional materials described above, which describe the normal use and intended purpose of the Qualcomm Accused Products and demonstrate that the Qualcomm Accused Products are especially made or especially adapted for a use that infringes the '052 patent.

287. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

288. On information and belief, as a result of Qualcomm's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, Qualcomm's products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '052 patent, including claim 6. On information and belief, Qualcomm had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Qualcomm's products, including the Qualcomm Accused Products, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

289. On information and belief, with knowledge of the '052 patent, Qualcomm has

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 119 of 155

willfully, deliberately, and intentionally infringed the '052 patent, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '052 patent. On information and belief, Qualcomm had actual knowledge of the '052 patent and Qualcomm's infringement of the '052 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Qualcomm continued to directly and indirectly infringe the '052 patent as set forth above. On information and belief, Qualcomm knew or should have known that its conduct amounted to infringement of the '052 patent at least because Qualcomm was aware of the '052 patent and infringement of the '052 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Qualcomm was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '052 patent's fame in the semiconductor industry, Qualcomm's expertise in the subject matter of the '052 patent, Qualcomm's technical competence to understand the scope of the '052 patent, and Qualcomm's intimate familiarity with its Accused Products. Additionally, Qualcomm was aware of the '052 patent, and infringement of the '052 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Qualcomm of such.

290. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 120 of 155

allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

291. On information and belief, Qualcomm will continue to infringe the '052 patent unless and until it is enjoined by this Court. Qualcomm, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Qualcomm's acts of infringement and, unless Qualcomm is enjoined from its infringement of the '052 patent, Plaintiff will continue to suffer irreparable harm.

292. Plaintiff is entitled to recover from Qualcomm damages at least in an amount adequate to compensate for its infringement of the '052 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

293. On information and belief, Arteris has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Arteris Accused Products, that indirectly infringe, either literally or under the doctrine of equivalents, one or more claims of the '052 patent in violation of 35 U.S.C. § 271, including claim 6. A comparison of claim 6 of the '052 patent to an exemplary product of the Arteris Accused Products is attached as Exhibit 16, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 121 of 155

Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

294. On information and belief, with knowledge of the '052 patent, Arteris has actively induced and continues to induce the direct infringement of one or more claims of the '052 patent, including claim 6, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Arteris Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '052 patent, including claim 6, with the intent to encourage those customers and/or end users to infringe the '052 patent.

295. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 122 of 155

customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

296. By way of example, on information and belief, Arteris actively induces infringement of the '052 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Arteris products, including at least the Arteris Accused Products, to make, use, sell, offer to sell, and/or import SoCs incorporating such Arteris products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '052 patent, including claim 6. For example, as described above, Arteris actively markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products. Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the '052 patent.

297. As shown in the charts appended as Exhibit 14 ('818 patent), Exhibit 15 ('449 patent), Exhibit 16 ('052 patent), Exhibit 17 ('9893 patent), Exhibit 18 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, Arteris markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import SoCs incorporating Arteris interconnect technology, including the Qualcomm Accused Products. For example, Arteris, or an entity under Arteris's direction or control, advertises, offers

### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 123 of 155

for sale, and/or otherwise promotes the Arteris Accused Products on its website.<sup>83</sup> Arteris, or one or more related entities, further publishes and distributes datasheets, presentations, technical papers, and videos for the Arteris Accused Products.<sup>84</sup> Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' specific intent to induce infringement.

298. On information and belief, with knowledge of the '052 patent, Arteris also contributed to, and continues to contribute to, the infringement of one or more claims of the '052 patent, including claim 6, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Arteris Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '052 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Arteris Accused Products, which are especially made or especially adapted for use in infringement of the '052 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, Arteris's informational and promotional materials described above, which

<sup>&</sup>lt;sup>83</sup> See, e.g., <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022) (listing "[k]ey benefits of Arteris IP ... interconnect solutions" and stating, for example, that the Arteris Accused Products "accelerate [SoC] semiconductor development and integration for a wide range of applications" and that "[c]ustomer results obtained by using Arteris IP products include lower power, higher performance, more efficient design reuse and faster SoC development, leading to lower development and production costs"); <u>https://www.arteris.com/products</u> (last visited December 19, 2022) (stating, for example, that Arteris's "interconnect IP is the communications backbone of your SoC, allowing you to make more complex chips in less time"); <u>https://www.arteris.com/semiconductor-ip-products</u> (last visited December 19, 2022) (stating, for example, that Arteris interconnect technology is "[t]he gold standard for SoC ... interconnects").

<sup>&</sup>lt;sup>84</sup> https://www.arteris.com/resources (last visited December 19, 2022); *see, e.g.*, <u>https://www.arteris.com/hs-fs/hub/48858/file-14363521-pdf/docs/springer-appdrivennocarchitecture8.5x11.pdf</u> (last visited December 19, 2022) (peer-reviewed technical journal article regarding Arteris interconnect technology, providing an Arteris product tutorial and touting that "the ... methodology will not lead you astray, the flexibility of the Arteris library will fit your needs, and the associated tool framework will permit a clear description and validation of your NoC").

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 124 of 155

describe the normal use and intended purpose of the Arteris Accused Products and demonstrate that the Arteris Accused Products are especially made or especially adapted for a use that infringes the '052 patent.

As explained above in paragraphs 220-225 (and the paragraphs cited therein), the 299. allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

300. On information and belief, as a result of Arteris's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, SoCs incorporating such Arteris products, including the Qualcomm Accused Products, in ways that directly infringe one or more

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 125 of 155

claims of the '052 patent, including claim 6. On information and belief, Arteris had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Arteris's products, including the Arteris Accused Products, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

301. On information and belief, with knowledge of the '052 patent, Arteris has willfully, deliberately, and intentionally infringed the '052 patent, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '052 patent. On information and belief, Arteris had actual knowledge of the '052 patent and infringement of the '052 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Arteris continued to indirectly infringe the '052 patent as set forth above. On information and belief, Arteris knew or should have known that its conduct amounted to infringement of the '052 patent at least because Arteris was aware of the '052 patent and infringement of the '052 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '052 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Arteris was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '052 patent's fame in the semiconductor industry, Arteris's expertise in the subject matter of the '052 patent, Arteris's technical competence

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 126 of 155

to understand the scope of the '052 patent, and Arteris's intimate familiarity with its Accused Products. Additionally, Arteris was aware of the '052 patent, and infringement of the '052 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Arteris of such.

As explained above in paragraphs 220-225 (and the paragraphs cited therein), the 302. allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

303. On information and belief, Arteris will continue to infringe the '052 patent unless and until it is enjoined by this Court. Arteris, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 127 of 155

is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Arteris's acts of infringement and, unless Arteris is enjoined from its infringement of the '052 patent, Plaintiff will continue to suffer irreparable harm.

304. Plaintiff is entitled to recover from Arteris damages at least in an amount adequate to compensate for its infringement of the '052 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

#### <u>COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 7,769,893</u>

305. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 304 above.

306. On information and belief, Qualcomm has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Qualcomm Accused Products, that infringe, either literally or under the doctrine of equivalents, one or more claims of the '9893 patent in violation of 35 U.S.C. § 271(a), including claim 4. A comparison of claim 4 of the '9893 patent to an exemplary product of the Qualcomm Accused Products is attached as Exhibit 11, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

307. On information and belief, with knowledge of the '9893 patent, Qualcomm has actively induced and continues to induce the direct infringement of one or more claims of the '9893 patent, including claim 4, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Qualcomm Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 128 of 155

the '9893 patent, including claim 4, with the intent to encourage those customers and/or end users to infringe the '9893 patent.

308. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

309. By way of example, on information and belief, Qualcomm actively induces infringement of the '9893 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Qualcomm's products, including at least the Qualcomm Accused Products, to make, use, sell, offer to sell, and/or import Qualcomm's products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '9893 patent, including claim 4. For example, as described above, Qualcomm actively markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products by publishing and distributing data sheets, manuals, and guides for the Qualcomm Accused Products. Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the '9893 patent.

310. As shown in the charts appended as Exhibit 8 ('818 patent), Exhibit 9 ('449 patent), Exhibit 10 ('052 patent), Exhibit 11 ('9893 patent), Exhibit 12 ('2893 patent), and in NST's May

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 129 of 155

26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, and the materials cited therein, and as discussed in paragraphs 200-212, the Qualcomm Accused Products necessarily infringe the Asserted Patents as made, used, offered for sale, sold, and imported and during their normal and intended use and operation and, therefore, because Qualcomm markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import the Qualcomm Accused Products with knowledge of the Asserted Patents, Qualcomm possesses specific intent to infringe. For example, Qualcomm, or an entity under Qualcomm's direction or control, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof on its website.<sup>85</sup> Qualcomm, or one or more related entities, further publishes and distributes product briefs, data sheets, manuals, guides, test reports, specifications, videos, and other authorized resources for the Qualcomm Accused Products.<sup>86</sup> Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's specific

<sup>85</sup> See, e.g., <u>https://www.qualcomm.com/snapdragon</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/technology/processors/mobile-processors</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/automotive</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/smartphones</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/mobile-computing</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022);
 <u>https://www.qualcomm.com/products/application/xr-vr-ar</u> (last visited December 19, 2022);
 <u>steps://www.qualcomm.com/products/application/xr-vr-ar</u> (last visited December 19, 2022);

visited December 19, 2022); <u>https://www.qualcomm.com/content/dam/qcomm-martech/dm-</u> assets/documents/Snapdragon-8-plus-Gen-1-Product-Brief.pdf (last visited December 19, 2022).

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 130 of 155

intent to induce infringement. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. *See*, *e.g.*, <u>https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz</u>, including files within the directory linux-6.0.1/drivers/interconnect.

311. On information and belief, with knowledge of the '9893 patent, Qualcomm also contributed to, and continues to contribute to, the infringement of one or more claims of the '9893 patent, including claim 4, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Qualcomm Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '9893 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Qualcomm Accused Products, which are especially made or especially adapted for use in infringement of the '9893 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, Qualcomm's informational and promotional materials described above, which describe the normal use and intended purpose of the Qualcomm Accused Products and demonstrate that the Qualcomm Accused Products are especially made or especially adapted for a use that infringes the '9893 patent.

312. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 131 of 155

original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

313. On information and belief, as a result of Qualcomm's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, Qualcomm's products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '9893 patent, including claim 4. On information and belief, Qualcomm had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Qualcomm's products, including the Qualcomm Accused Products, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

314. On information and belief, with knowledge of the '9893 patent, Qualcomm has willfully, deliberately, and intentionally infringed the '9893 patent, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '9893 patent. On information and belief, Qualcomm had actual knowledge of the '9893 patent and infringement of the '9893 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Qualcomm continued to directly and indirectly infringe the '9893 patent as set forth above. On information and belief, Qualcomm that its conduct amounted to infringement of

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 132 of 155

the '9893 patent at least because Qualcomm was aware of the '9893 patent and infringement of the '9893 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Qualcomm was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '9893 patent's fame in the semiconductor industry, Qualcomm's expertise in the subject matter of the '9893 patent, Qualcomm's technical competence to understand the scope of the '9893 patent, and Qualcomm's intimate familiarity with its Accused Products. Additionally, Qualcomm was aware of the '9893 patent, and infringement of the '9893 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Qualcomm of such.

315. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

316. On information and belief, Qualcomm will continue to infringe the '9893 patent unless and until it is enjoined by this Court. Qualcomm, by way of its infringing activities, has

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 133 of 155

caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Qualcomm's acts of infringement and, unless Qualcomm is enjoined from its infringement of the '9893 patent, Plaintiff will continue to suffer irreparable harm.

317. Plaintiff is entitled to recover from Qualcomm damages at least in an amount adequate to compensate for its infringement of the '9893 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

318. On information and belief, Arteris has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Arteris Accused Products, that indirectly infringe, either literally or under the doctrine of equivalents, one or more claims of the '9893 patent in violation of 35 U.S.C. § 271, including claim 4. A comparison of claim 4 of the '9893 patent to an exemplary product of the Arteris Accused Products is attached as Exhibit 17, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

319. On information and belief, with knowledge of the '9893 patent, Arteris has actively induced and continues to induce the direct infringement of one or more claims of the '9893 patent, including claim 4, in violation of 35 U.S.C. § 271(b), by its customers and/or end users of its products, including at least the Arteris Accused Products, by selling, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '9893 patent, including claim 4, with the intent to encourage those customers and/or end users to infringe the '9893 patent.

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 134 of 155

As explained above in paragraphs 220-225 (and the paragraphs cited therein), the 320. allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

321. By way of example, on information and belief, Arteris actively induces infringement of the '9893 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Arteris products, including at least the Arteris Accused Products, to make, use, sell, offer to sell, and/or import SoCs incorporating such Arteris products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '9893 patent, including claim 4. For example, as described above, Arteris actively markets, advertises, offers for sale, and/or

## Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 135 of 155

otherwise promotes the Arteris Accused Products by publishing and distributing data sheets, manuals, and guides for the Arteris Accused Products. Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the '9893 patent.

322. As shown in the charts appended as Exhibit 14 ('818 patent), Exhibit 15 ('449 patent), Exhibit 16 ('052 patent), Exhibit 17 ('9893 patent), Exhibit 18 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, Arteris markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import SoCs incorporating Arteris interconnect technology, including the Qualcomm Accused Products. For example, Arteris, or an entity under Arteris's direction or control, advertises, offers for sale, and/or otherwise promotes the Arteris, or one or more related entities, further publishes and distributes datasheets, presentations, technical papers, and videos for the Arteris Accused Products.<sup>88</sup> Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris,

<sup>&</sup>lt;sup>87</sup> See, e.g., <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022) (listing "[k]ey benefits of Arteris IP ... interconnect solutions" and stating, for example, that the Arteris Accused Products "accelerate [SoC] semiconductor development and integration for a wide range of applications" and that "[c]ustomer results obtained by using Arteris IP products include lower power, higher performance, more efficient design reuse and faster SoC development, leading to lower development and production costs"); <u>https://www.arteris.com/products</u> (last visited December 19, 2022) (stating, for example, that Arteris's "interconnect IP is the communications backbone of your SoC, allowing you to make more complex chips in less time"); <u>https://www.arteris.com/semiconductor-ip-products</u> (last visited December 19, 2022) (stating, for example, that Arteris interconnect technology is "[t]he gold standard for SoC ... interconnects").

<sup>&</sup>lt;sup>88</sup> https://www.arteris.com/resources (last visited December 19, 2022); *see, e.g.*, <u>https://www.arteris.com/hs-fs/hub/48858/file-14363521-pdf/docs/springer-appdrivennocarchitecture8.5x11.pdf</u> (last visited December 19, 2022) (peer-reviewed technical journal article regarding Arteris interconnect technology, providing an Arteris product tutorial and touting that "the ... methodology will not lead you astray, the flexibility of the Arteris library will fit your needs, and the associated tool framework will permit a clear description and validation of your NoC").

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 136 of 155

Qualcomm, and other sources, will further confirm the details of Arteris' specific intent to induce infringement.

323. On information and belief, with knowledge of the '9893 patent, Arteris also contributed to, and continues to contribute to, the infringement of one or more claims of the '9893 patent, including claim 4, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Arteris Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '9893 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Arteris Accused Products, which are especially made or especially adapted for use in infringement of the '9893 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, Arteris's informational and promotional materials described above, which describe the normal use and intended purpose of the Arteris Accused Products and demonstrate that the Arteris Accused Products are especially made or especially adapted for a use that infringes the '9893 patent.

324. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 137 of 155

this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

325. On information and belief, as a result of Arteris's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, SoCs incorporating such Arteris products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '9893 patent, including claim 4. On information and belief, Arteris had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Arteris's products, including the Arteris Accused Products, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

326. On information and belief, with knowledge of the '9893 patent, Arteris has willfully, deliberately, and intentionally infringed the '9893 patent, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '9893 patent. On information and belief, Arteris had actual knowledge of the '9893 patent and infringement of the '9893 patent by Arteris, Qualcomm, and/or their respective customers or end

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 138 of 155

users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Arteris continued to indirectly infringe the '9893 patent as set forth above. On information and belief, Arteris knew or should have known that its conduct amounted to infringement of the '9893 patent at least because Arteris was aware of the '9893 patent and infringement of the '9893 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '9893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Arteris was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '9893 patent's fame in the semiconductor industry, Arteris's expertise in the subject matter of the '9893 patent, Arteris's technical competence to understand the scope of the '9893 patent, and Arteris's intimate familiarity with its Accused Products. Additionally, Arteris was aware of the '9893 patent, and infringement of the '9893 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Arteris of such.

327. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 139 of 155

Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

328. On information and belief, Arteris will continue to infringe the '9893 patent unless and until it is enjoined by this Court. Arteris, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Arteris's acts of infringement and, unless Arteris is enjoined from its infringement of the '9893 patent, Plaintiff will continue to suffer irreparable harm.

329. Plaintiff is entitled to recover from Arteris damages at least in an amount adequate to compensate for its infringement of the '9893 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

#### <u>COUNT V – INFRINGEMENT OF U.S. PATENT NO. 8,072,893</u>

330. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 329 above.

331. On information and belief, Qualcomm has made, used, offered for sale, sold, and/or

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 140 of 155

imported products, including within this Judicial District, including at least the Qualcomm Accused Products, made or designed by processes that infringe, either literally or under the doctrine of equivalents, one or more claims of the '2893 patent in violation of 35 U.S.C. § 271(a), § 271(b), § 271(c) and/or § 271(g), including claim 10. A comparison of claim 10 of the '2893 patent to an exemplary product of the Qualcomm Accused Products made or designed by infringing processes is attached as Exhibit 12, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

332. On information and belief, with knowledge of the '2893 patent, one or more of the Qualcomm Defendants have used in the United States a process that infringes one or more claims of the '2893 patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a).

333. On information and belief, with knowledge of the '2893 patent, Qualcomm has actively induced and continues to induce the direct infringement of one or more claims of the '2893 patent, including claim 10, in violation of 35 U.S.C. § 271(b), by manufacturers, suppliers, customers, and/or other users of processes that infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '2893 patent, including claim 10, with the intent to encourage those customers and/or end users to infringe the '2893 patent. On information and belief, Qualcomm induces infringement by selling, designing, providing support for, providing designs and/or specifications for, providing instructions for use of, and/or otherwise encouraging its manufacturers, suppliers, customers, and/or other users of infringing with the intent to encourage those manufacturers, suppliers, customers and/or other users of infringing processes to infringe the '2893 patent.

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 141 of 155

334. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

By way of example, on information and belief, Qualcomm actively induces 335. infringement of the '2893 patent, in violation of 35 U.S.C. §§ 271(b) and/or 271(g), by encouraging, instructing, and aiding one or more persons in the United States and/or outside the United States, including but not limited to suppliers who supply and/or design components (for example, semiconductor IPs) of, to make, test, operate, and/or use Qualcomm's products, including at least the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), to make, use, sell, offer to sell, and/or import Qualcomm's products, including at least the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), in a manner that infringes at least one claim of the '2893 patent, including claim 10. For example, as described above, Qualcomm actively markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products by publishing and distributing data sheets, manuals, and guides for the Qualcomm Accused Products. Additionally, on information and belief, Qualcomm provides its suppliers with specifications and/or designs for components, including by way of example, semiconductor IPs, for the Qualcomm Accused Products. Therein, on

### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 142 of 155

information and belief, Qualcomm describes, encourages, and touts the use of the subject matter claimed in the '2893 patent.

As shown in the charts appended as Exhibit 8 ('818 patent), Exhibit 9 ('449 patent), 336. Exhibit 10 ('052 patent), Exhibit 11 ('9893 patent), Exhibit 12 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, and the materials cited therein, and as discussed in paragraphs 200-212, the Qualcomm Accused Products necessarily infringe the Asserted Patents as made, used, offered for sale, sold, and imported and during their normal and intended use and operation and, therefore, because Qualcomm markets, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use and operation thereof and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import the Qualcomm Accused Products with knowledge of the Asserted Patents, Qualcomm possesses specific intent to infringe. For example, Qualcomm, or an entity under Qualcomm's direction or control, advertises, offers for sale, and/or otherwise promotes the Qualcomm Accused Products and the normal and intended use operation thereof on its website.<sup>89</sup> Qualcomm, or one or more related entities, further publishes and distributes product briefs, data sheets, manuals, guides, test reports, specifications, videos, and other authorized resources for the Qualcomm Accused Products and the normal and intended use and operation

<sup>&</sup>lt;sup>89</sup> See, e.g., <u>https://www.qualcomm.com/snapdragon</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/technology/processors/mobile-processors</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/automotive</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/smartphones</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/mobile-computing</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/wearables</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/products/application/audio</u> (last visited December 19, 2022);

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 143 of 155

thereof.<sup>90</sup> Therein, on information and belief, Qualcomm describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's specific intent to induce infringement. Moreover, further evidence of inducement may be found in publicly available code, including publicly available Android code. *See, e.g.*, <u>https://cdn.kernel.org/pub/linux/kernel/v6.x/linux-6.0.1.tar.gz</u>, including files within the directory linux-6.0.1/drivers/interconnect.

337. On information and belief, with knowledge of the '2893 patent, Qualcomm also contributed to, and continues to contribute to, the infringement of one or more claims of the '2893 patent, including claim 10, in violation of 35 U.S.C. § 271(c), by providing specifications and/or designs for the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), knowing them to be especially made or especially adapted for practicing the inventions of the '2893 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the specifications and/or designs for Qualcomm Accused Products or components thereof (for example, semiconductor IPs), which are especially made or especially adapted for use in infringement of the '2893 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, the Products or components thereof (for example, semiconductor IPs), which are especially made or especially adapted for use in infringement of the '2893 patent as made, used, offered for sale, sold, and imported and when used for their normal and intended purpose. This is also evidenced by, among other things, the normal use and intended purpose of the specifications and/or designs for the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), which demonstrate that the specifications and/or designs for the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), which demonstrate that the specifications and/or designs for the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), which demonstrate that the specifications and/or designs for the Qualcomm Accused Products or components thereof (for example, semiconductor IPs).

<sup>&</sup>lt;sup>90</sup> See, e.g., <u>https://www.qualcomm.com/search?query=%22snapdragon%22&activeCategory=Documents</u> (last visited December 19, 2022); <u>https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/Snapdragon-8-plus-Gen-1-Product-Brief.pdf</u> (last visited December 19, 2022).

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 144 of 155

example, semiconductor IPs) are especially made or especially adapted for a use that infringes the '2893 patent.

338. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

339. On information and belief, as a result of Qualcomm's inducement of, and/or contribution to, infringement, its suppliers, customers, and/or end users designed, made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, Qualcomm's products, including the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), in ways that directly infringe one or more claims of the '2893 patent, including claim 10. On information and belief, Qualcomm had actual knowledge of its suppliers', customers', and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Qualcomm's products, including the Qualcomm Accused Products or components thereof (for example, semiconductor IPs), at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

340. On information and belief, with knowledge of the '2893 patent, one or more of the

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 145 of 155

Qualcomm Defendants import into the United States or offers to sell, sells or uses in the United States Qualcomm Accused Product which is made by a process that infringes the '2893 patent in violation of 35 U.S.C. §102(g). Further, with knowledge that the Qualcomm Accused Products, or parts thereof, are made by processes that infringe the '2893 patent and that such products are imported into the United States or offered for sale, sold or used within the United States by purchasers or users of Accused Qualcomm Products in violation of §102(g), the Qualcomm Defendants have been and are inducing infringement by such sellers, importers, purchasers and users of Qualcomm Accused Products in violation of §102(b).

341. On information and belief, with knowledge of the '2893 patent, Qualcomm has willfully, deliberately, and intentionally infringed the '2893 patent, at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '2893 patent. On information and belief, Qualcomm had actual knowledge of the '2893 patent and infringement of the '2893 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Qualcomm continued to directly and indirectly infringe the '2893 patent as set forth above. On information and belief, Qualcomm knew or should have known that its conduct amounted to infringement of the '2893 patent at least because Qualcomm was aware of the '2893 patent and infringement of the '2893 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 146 of 155

On information and belief, Qualcomm was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '2893 patent's fame in the semiconductor industry, Qualcomm's expertise in the subject matter of the '2893 patent, Qualcomm's technical competence to understand the scope of the '2893 patent, and Qualcomm's intimate familiarity with its Accused Products. Additionally, Qualcomm was aware of the '2893 patent, and infringement of the '2893 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Qualcomm of such.

342. As explained above in paragraphs 200-212 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Qualcomm has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Qualcomm had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Qualcomm's knowledge of, and knowing infringement of, the Asserted Patents.

343. On information and belief, Qualcomm will continue to infringe the '2893 patent unless and until it is enjoined by this Court. Qualcomm, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Qualcomm's acts of infringement and, unless Qualcomm is enjoined from its infringement of the '2893 patent, Plaintiff will continue to suffer irreparable harm.

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 147 of 155

344. Plaintiff is entitled to recover from Qualcomm damages at least in an amount adequate to compensate for its infringement of the '2893 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

345. On information and belief, Arteris has made, used, offered for sale, sold, and/or imported products, including within this Judicial District, including at least the Arteris Accused Products, made or designed by processes that infringe, either literally or under the doctrine of equivalents, one or more claims of the '2893 patent in violation of 35 U.S.C. § 271(a) and/or § 271(g), including claim 1. A comparison of claim 1 of the '2893 patent to an exemplary product of the Arteris Accused Products made or designed by infringing processes is attached as Exhibit 18, as well as in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, all of which are incorporated herein by reference.

346. On information and belief, with knowledge of the '2893 patent, Arteris has actively induced and continues to induce the direct infringement of one or more claims of the '2893 patent, including claim 10, in violation of 35 U.S.C. § 271(b), by its suppliers, customers, and/or end users of its products, including at least the Arteris Accused Products, by selling, designing, providing support for, providing designs and/or specifications for, providing instructions for use of, and/or otherwise encouraging its suppliers, customers, and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '2893 patent, including claim 10, with the intent to encourage those customers and/or end users to infringe the '2893 patent.

347. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 148 of 155

the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

348. By way of example, on information and belief, Arteris actively induces infringement of the '2893 patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and/or end users who test, operate, and use Arteris products, including at least the Arteris Accused Products, to make, use, sell, offer to sell, and/or import SoCs incorporating such Arteris products, including at least the Qualcomm Accused Products, in a manner that infringes at least one claim of the '2893 patent, including claim 10. For example, as described above, Arteris actively markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products. Therein, on information and belief, Arteris

### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 149 of 155

describes and touts the use of the subject matter claimed in the '2893 patent.

349. As shown in the charts appended as Exhibit 14 ('818 patent), Exhibit 15 ('449 patent), Exhibit 16 ('052 patent), Exhibit 17 ('9893 patent), Exhibit 18 ('2893 patent), and in NST's May 26, 2023 Disclosures of Asserted Claims and Infringement Contentions and any amendments or supplements thereto, the allegations of which are incorporated herein by reference, Arteris markets, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products and, on information and belief, does so to actively and knowingly induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, offer to sell and/or import SoCs incorporating Arteris interconnect technology, including the Qualcomm Accused Products. For example, Arteris, or an entity under Arteris's direction or control, advertises, offers for sale, and/or otherwise promotes the Arteris Accused Products on its website.<sup>91</sup> Arteris, or one or more related entities, further publishes and distributes datasheets, presentations, technical papers, and videos for the Arteris Accused Products.<sup>92</sup> Therein, on information and belief, Arteris describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged herein. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' specific intent to induce infringement.

<sup>&</sup>lt;sup>91</sup> See, e.g., <u>https://www.arteris.com/about-arteris</u> (last visited December 19, 2022) (listing "[k]ey benefits of Arteris IP ... interconnect solutions" and stating, for example, that the Arteris Accused Products "accelerate [SoC] semiconductor development and integration for a wide range of applications" and that "[c]ustomer results obtained by using Arteris IP products include lower power, higher performance, more efficient design reuse and faster SoC development, leading to lower development and production costs"); <u>https://www.arteris.com/products</u> (last visited December 19, 2022) (stating, for example, that Arteris's "interconnect IP is the communications backbone of your SoC, allowing you to make more complex chips in less time"); <u>https://www.arteris.com/semiconductor-ip-products</u> (last visited December 19, 2022) (stating, for example, that Arteris interconnect technology is "[t]he gold standard for SoC ... interconnects").

<sup>&</sup>lt;sup>92</sup> <u>https://www.arteris.com/resources</u> (last visited December 19, 2022); *see, e.g.*, <u>https://www.arteris.com/hs-fs/hub/48858/file-14363521-pdf/docs/springer-appdrivennocarchitecture8.5x11.pdf</u> (last visited December 19, 2022) (peer-reviewed technical journal article regarding Arteris interconnect technology, providing an Arteris product tutorial and touting that "the ... methodology will not lead you astray, the flexibility of the Arteris library will fit your needs, and the associated tool framework will permit a clear description and validation of your NoC").

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 150 of 155

350. On information and belief, with knowledge of the '2893 patent, Arteris also contributed to, and continues to contribute to, the infringement of one or more claims of the '2893 patent, including claim 10, in violation of 35 U.S.C. § 271(c), by offering to sell, selling, and/or importing the Arteris Accused Products, knowing them to be especially made or especially adapted for practicing the inventions of the '2893 patent and not a staple article or commodity of commerce suitable for substantial non-infringing use. This is evidenced by, among other things, the design, configuration, and functionality of the Arteris Accused Products, which are especially made or especially adapted for use in infringement of the '2893 patent when used for their normal and intended purpose. This is also evidenced by, among other things, Arteris's informational and promotional materials described above, which describe the normal use and intended purpose of the Arteris Accused Products and demonstrate that the Arteris Accused Products are especially made or especially adapted for a use that infringes the '2893 patent.

351. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 151 of 155

Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

352. On information and belief, as a result of Arteris's inducement of, and/or contribution to, infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import, SoCs incorporating such Arteris products, including the Qualcomm Accused Products, in ways that directly infringe one or more claims of the '2893 patent, including claim 10. On information and belief, Arteris had actual knowledge of its customers' and/or end users' direct infringement at least by virtue of their sales, instruction, and/or otherwise promotion of Arteris's products, including the Arteris Accused Products, at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1).

353. On information and belief, with knowledge of the '2893 patent, Arteris has willfully, deliberately, and intentionally infringed the '2893 patent, at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1), and continues to willfully, deliberately, and intentionally infringe the '2893 patent. On information and belief, Arteris had actual knowledge of the '2893 patent and infringement of the '2893 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, after acquiring that knowledge, Arteris continued to indirectly

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 152 of 155

infringe the '2893 patent as set forth above. On information and belief, Arteris knew or should have known that its conduct amounted to infringement of the '2893 patent at least because Arteris was aware of the '2893 patent and infringement of the '2893 patent by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, at least as of the dates of knowledge of the '2893 patent alleged above, and no later than the December 19, 2022, date of the original Complaint (Dkt. 1). On information and belief, Arteris was aware of infringement by Arteris, Qualcomm, and/or their respective customers or end users, or was willfully blind to such infringement, by virtue of the '2893 patent's fame in the semiconductor industry, Arteris's expertise in the subject matter of the '2893 patent, Arteris's technical competence to understand the scope of the '2893 patent, and Arteris's intimate familiarity with its Accused Products. Additionally, Arteris was aware of the '2893 patent, and infringement of the '2893 patent by Arteris, Qualcomm, and/or their respective customers or end users, at least as of the December 19, 2022, date of the original Complaint (Dkt. 1) because Plaintiff notified Arteris of such.

354. As explained above in paragraphs 220-225 (and the paragraphs cited therein), the allegations of which are incorporated herein by reference, Arteris has had knowledge of each of the Asserted Patents, including infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users, or willful blindness to such infringement, and Arteris had knowledge or willful blindness that its affirmative acts to encourage infringement in fact constituted patent infringement, both before, and after, the December 19, 2022, date of the original Complaint (Dkt. 1). As explained above in paragraphs 23-32, the allegations of which are incorporated herein by reference, by virtue of the Arteris acquisition, and the diligence surrounding this acquisition, the knowledge of Arteris alleged herein regarding knowledge of the Asserted

#### Case 1:22-cv-01331-DAE Document 183 Filed 09/11/24 Page 153 of 155

Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. Additionally, the knowledge of the former-Arteris employees hired by Qualcomm, including Mr. Philippe Martin, regarding the Asserted Patents and infringement of the Asserted Patents by Arteris, Qualcomm, and/or their respective customers or end users is imputed to Qualcomm. On information and belief, discovery in this Case, including from Arteris, Qualcomm, and other sources, will further confirm the details of Arteris' knowledge of, and knowing infringement of, the Asserted Patents.

355. On information and belief, Arteris will continue to infringe the '2893 patent unless and until it is enjoined by this Court. Arteris, by way of its infringing activities, has caused and continues to cause Plaintiff to suffer damages in an amount to be determined, and has caused and is causing Plaintiff irreparable harm. Plaintiff has no adequate remedy at law against Arteris's acts of infringement and, unless Arteris is enjoined from its infringement of the '2893 patent, Plaintiff will continue to suffer irreparable harm.

356. Plaintiff is entitled to recover from Arteris damages at least in an amount adequate to compensate for its infringement of the '2893 patent, which amount has yet to be determined, together with interest and costs fixed by the Court.

#### PRAYER FOR RELIEF

WHEREFORE, Plaintiff Network System Technologies, LLC requests that the Court enter judgment for Plaintiff and against Defendants Qualcomm and Arteris and enter the following relief:

A. A judgment that Defendants directly and/or indirectly infringe the following Asserted Patents:

U.S. Patent No. 7,366,818 (Exhibit 1, "'818 patent") U.S. Patent No. 7,373,449 (Exhibit 2, "'449 patent") U.S. Patent No. 7,594,052 (Exhibit 3, "052 patent") U.S. Patent No. 7,769,893 (Exhibit 4, "9893 patent") U.S. Patent No. 8,072,893 (Exhibit 5, "2893 patent")

B. A preliminary and permanent injunction restraining and enjoining Defendants, their officers, partners, agents, servants, employees, parents, subsidiaries, divisions, affiliate corporations, joint ventures, other related business entities and all other persons acting in concert, participation, or in privity with them, and their successors and assigns, from infringing the Asserted Patents;

C. An award of damages to Plaintiff arising from Defendants' past and continuing infringement up until the date Defendants are finally and permanently enjoined from further infringement, including compensatory damages;

D. A determination that Defendants' infringement of the Asserted Patents has been willful, and an award of treble damages to Plaintiff pursuant to 35 U.S.C. § 284;

E. A determination that this is an exceptional case and awarding Plaintiff's attorneys' fees pursuant to 35 U.S.C. § 285;

F. An order awarding Plaintiff costs and expenses in this action;

G. An order awarding Plaintiff pre- and post-judgment interest on its damages; and

H. Such other and further relief in law or in equity as this Court deems just and proper.

## JURY DEMAND

Plaintiff respectfully requests a jury trial on all issues so triable.

Date: July 22, 2024

Respectfully submitted,

/s/ Daniel S. Stringfield w/ permission William <u>E. Davis, III</u> William E. Davis, III Texas Bar No. 24047416 Ty Wilson Texas State Bar No. 24106583 DAVIS FIRM PC 213 N. Fredonia Street, Suite 230 Longview, TX 75601 (903) 230-9090 bdavis@davisfirm.com twilson@davisfirm.com

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Attorneys for Plaintiff Network System Technologies, LLC

# **CERTIFICATE OF SERVICE**

I hereby certify that all counsel of record are being served on July 22, 2024 with a copy of

this document via the Court's CM/ECF system per Local Rule CV-5(a)(3).

<u>/s/ William E. Davis, III</u> William E. Davis, III